

THE AMERICAN BEE JOURNAL

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Contents of this Number.

Editor's Table.

Editorial Items.....	49-54
About that Honey Confiscation.....	50
Petitions on Adulteration.....	51
Large Yield of Mr. D. Gardner.....	52
How to Exhibit Bees.....	52
How to Protect an Apiary.....	53
Selling Bee Receipts.....	54
New Comb Foundation.....	54
New Hives at our Museum.....	54
Statistical Table—continuation of.....	55

Foreign Notes:

German and Austrian Convention.....	56
Foreign Items Gleaned by Frank Benton.....	56
Swallows and Bees.....	56
Mellilot Clover in Alsace-Lorraine.....	56
Honey Adulteration in France.....	56

Correspondence:

Something about Bees.....	57
Clethra Alnifolia, or Sweet Pepper.....	58
Block for nailing Prize Boxes.....	60
Careful Handling of the Bees.....	60
Untested Queens.....	60
Improvement of Italian Bees.....	61
Adulteration—Pure Italians, &c.....	62
Fertilization in Confinement.....	62
Italians vs. Black Bees.....	63
Standard of Purity for Italians.....	63
Glucose—Imported Queens, &c.....	63
Shade for Hives.....	64
Imported Italian Queens.....	64
Will Honey Cure Consumption?.....	65
Dealers in Apiarian Supplies.....	66
Marketing Honey.....	67
Sundry Items of Interest.....	68
National Convention.....	68
Standard Italian Queens.....	69
Adulteration of Sweets.....	69
Business a Pleasure—Bingham's Eastern Visit.....	70
Glucose or Grape Sugar.....	71
Cleome as a Honey Plant.....	72

Conventions:

Merits of the different Varieties of Bees.....	73
Mustard as a Honey Plant.....	75
Comb Foundation.....	76
The Grape Sugar Controversy.....	76
Wintering Bees Successfully.....	77
Bee-Keeping in Southern California.....	78
Carson City, Mich. Convention.....	79
Muscatine, Iowa, District Convention.....	80

Our Letter Box:

M. J. Wagner, J. T. Williamson, H. H. Brown.....	80
W. E. McBride, Isaac Sharp, Moses Bailey, Lee Emerick, F. Searies, L. M. Wainwright, Job Huestes, Chas. S. Burt.....	81
G. W. Piper, R. L. Aylor, W. T. Parham, J. J. Whitson, P. J. Kline, F. C. Eldred, W. C. Leonard.....	82
E. Pickup, H. S. Hastings, W. A. Schofield, H. R. Boardman, Wm. Camm, Bittenbender Bros., J. P. H. Brown, H. A. Simonds.....	83
John M. Putnam, Chas. J. Fox, J. L. Smith, Mrs. Mollie O. Large, E. Rood, A. Wilder, Cosmo.....	84
John Fox, J. D. Ellis, G. W. Brown, S. P. Tracy, Wm. Clements, D. Clifton.....	85
John Fox, Cosmo, G. M. Doolittle, A. E. Wenzel, A. J. Cook.....	86

Business Department:

"Facts are Stubborn Things".....	87
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Editor's Table.

Now is the time to procure hives, and boxes, for the next season.

The late cold weather has been very destructive to many colonies that were left unprotected on their summer stands, but those that were properly cared for, either by packing or being carried to winter repositories are all right.

"Are separators necessary?" asks one. We say emphatically. *Yes!* That is if it is desired to have the sections so that they will pack nicely in crates, and carry without leaking about everything. If not used, the combs will be built uneven, and one will crowd on to the other, and mash down, making bad work alike for the shipper, the dealer and the consumer!

The very interesting article descriptive of the different races of bees, by Frank Benton, as given on page 73 of this JOURNAL, will be read with considerable interest by all.

The Michigan *Farmer*, remarks that "the use of glucose has resulted in great damage to the apiarian interest of the country, and Mr. Chas. Dadant, Dr. R. C. Kedzie, Prof. A. J. Cook, Mr. C. F. Muth, and the AMERICAN BEE JOURNAL, are all deserving of great credit for their efforts against the practice, and towards the securing of proper legislation to suppress the adulteration of honey."



About that Honey Confiscation.

New York, Jan. 23, 1879.

EDITOR AMERICAN BEE JOURNAL:—The January number of your Journal contained an editorial, saying: "The *Board of Trade Gazette* informs us, that the large lot of honey, sent to Liverpool by Thurber & Co., of New York, last November, has been condemned by the British authorities on account of adulteration."

Considering that nothing of the kind ever happened, we think that you owe us an apology for the announcement; the more so, because the "*Board of Trade Gazette*," while giving currency to a malicious rumor, started by a jealous enemy, did not mention the name of Thurber in conjunction therewith.

The only possible foundation that there could be for such a report, was the summoning some months since of an English grocer, under the British adulteration act, for selling honey in glass jars—the liquid portion of which had been mixed with glucose, of which there was no notice upon the label. A small fine was imposed; but no seizure made; and this occurrence happened about one year ago; so it could have no legitimate connection with our shipment of honey in November, which, as stated in your article, was in the comb.

We have spent a great deal of money in the development of this industry; have taken much pains to forward its interests; and we think it a poor return, that the AMERICAN BEE JOURNAL should lend its columns to spread false reports, or magnify true ones.

We have no desire to discuss the question, which bee-keepers are a great deal better able to decide than we are, as to whether glucose ought to be utilized for feeding bees. We ourselves, as well as other dealers in honey, have put up broken combs in glass jars, filling the spaces around the comb with a mixture of honey and glucose, which will not candy or congeal, as will pure honey—this result being demanded both by the retail dealer and the consumer. We have never, for a moment, concealed this practice; and are now putting a notice to this effect upon every jar packed by us, whether for export or home trade, as we believe that the consumer has a right to know just what he is getting.

Pure glucose, which is nothing more nor less than a syrup made from corn, is as wholesome as honey, and, we believe, is as legitimate a commercial product.

We do not, however, believe that glucose ought to be sold as honey; but, if the public like, and *will buy*, a mixture, it is all right for them to do so; and we do not think that bee-keepers will gain anything by trying to excite public prejudice through false reports, as regards its wholesomeness.

It does not matter much to us, however, as nine-tenths of the honey which we handle, is in the comb; and we prefer to handle it in this shape, whenever we can do so.

Of late, however, certain voracious (?) individuals in New York have sought to prejudice the public against comb honey, by asserting, that so ingenious have the

adulterators become, that they extract the honey from the cells, fill them up with glucose, and palm them off upon an unsuspecting public as pure honey.

Of course, this will make apiarists smile; but just at a time when there is an epidemic of adulteration hue-and-cries, even such reports as these will be believed by some people; and, if it has the effect of injuring the consumption of honey, we believe that the people who spread such reports, will be more to blame for the injury done the bee industry, than those dealers, who mix glucose with the liquid portion of the honey, which, at the demand of the consumer, and retailer, is put up with the comb in glass jars.

Respectfully yours,

H. K. & F. B. THURBER & Co.

The article on which our remarks upon this subject was based in the last BEE JOURNAL, is copied from the *Board of Trade Gazette*, of Dec. 7th, 1878, and reads as follows:

"AMERICAN HONEY.—Those who knew about the consumption of honey in Europe, very gladly received the information that American honey in large quantities would be imported by England. When it was stated that a well-known and very progressive firm in New York had forwarded a whole cargo of this nutriment to Liverpool, many congratulations were interchanged. Now the news arrives that accusations of adulteration have been made and that the British government had ordered the confiscation of the mixture consigned as United States Honey. This is too bad."

We certainly had no desire to misrepresent any one or anything, and do not even now see how we could have obtained any other idea from the *Board of Trade Gazette*, than that expressed in our last issue.

We never heard that any one but Messrs. Thurber & Co., ever sent a "whole cargo" of honey to Liverpool, and as they did send such a cargo in November, we innocently concluded that was the exportation alluded to. The *Board of Trade Gazette*, adds: "Now," (not a year ago) "the news arrives" about "adulteration" and "confiscation" by "the British authorities," of this cargo of "United States Honey"!!

If the *Board of Trade Gazette* gave "currency to a malicious rumor, started by a jealous enemy," as Mr. Thurber states, *it was to blame*—not the AMERICAN BEE JOURNAL; it made legitimate conclusions merely from the statements of the *Gazette*!

We are exceedingly glad, however, to

be assured by Mr. Thurber that the "cargo" of comb honey has *not* been confiscated! His language is explicit and allays our fears—he says "nothing of the kind ever happened"!

We have repeatedly acknowledged the exertions of Messrs. Thurber as praiseworthy, and deserving the thanks of all bee-keepers, for, in so large a measure, creating a demand for honey. We cannot, however, approve of the adulteration of extracted honey with glucose, which Mr. Thurber admits is practiced by his firm.

The *British Bee Journal* for January contains the analysis by Dr. Clarke, of Glasgow, of the honey which a grocer of that city was fined for selling, and says it was "California white comb honey from H. K. & F. B. Thurber & Co." The analysis showed glucose 57 per cent.; water 13.3 per cent. and fruit sugar 29.7—and the "Caledonian Aparian Society," by its Secretary, adds: "The sample consisted partly of comb, and partly of syrup. The syrup had no taste of honey." At that time we could not think that Thurber & Co., had anything to do with it, and so stated in the *JOURNAL*. We gave that firm credit for more sagacity than to take such an adulteration to Britain, where stringent laws against adulteration were in force.

But the "cargo" of honey sent to Liverpool was "honey in the comb" and if it was adulterated it must have been done by feeding the bees upon glucose. *Therefore*, if it had been confiscated, Messrs. Thurber & Co. would have been the *victims*, not the adulterators! We do not see that we owe them any apology; and if they will re-read our remarks in the *BEE JOURNAL* for January, they will, we think, be of the same opinion. We made no allusions to them, except as the exporters of the honey they had bought—and if it was adulterated, they as merchants buying and selling an article in unbroken packages, were of course entirely innocent!

We do not believe that any considerable portion of honey is adulterated by

the bees being fed upon glucose, as yet. Let all take warning, and discontinue so dangerous a practice at once and forever!

Petitions on Adulteration.

Concerning their presentation to Congress, Mr. Dadant says:

"That will depend on the committee of ways and means, which has to present a report on the frauds on sugar, at the Custom House of New York. The presentation of the petition will accompany this report and one will help the other. I suppose that Congress will appoint a committee to prepare a bill; till then we can have petitions signed and sent to Washington. Every one can send the petitions to the representative of his county; or, if preferred, the petitions can be sent to me and I will forward them to Washington.

"Prof. Cook has advised me that the legislature of Michigan has passed a joint resolution requesting the representatives of that State in Congress to use all possible means to obtain the passage of a law against adulteration. This is a good move.

"Several other legislatures will take similar steps. I cannot too strongly urge every one, who knows some member of their legislature, to write to them in order to obtain a similar move. With such help we can take Congress by storm." CHAS. DADANT.

The "joint resolutions" as passed by the Michigan Legislature read as follows:

JOINT RESOLUTION FOR THE PREVENTION OF ADULTERATION OF HONEY.

Resolved by the Senate and House of Representatives of the State of Michigan, That our Senators and Representatives in Congress be respectfully requested to use their influence for the passage of the bill now pending before Congress prohibiting the adulteration of honey.

Resolved, That his Excellency the Governor be requested to transmit copies of the foregoing resolution to each of our Senators and Representatives in Congress.

As yet, there is no Bill before Congress and all petitions are referred to the Judiciary Committee. We hope similar action will be taken by the Legislatures of every State.

Dr. J. W. Greene, of Chillicothe, Mo., has made arrangements for the offering of the following resolution in the Missouri State Legislature, and suggest that the bee-keepers of the other States copy it, or prepare a better one, and cause the same to pass in the legislatures of all the several states this winter. The manufacturers of all articles of



food, drink or medicine, ought to be required to label their goods, giving ingredients in compounds also proportions.

A concurrent resolution looking to the protection of Bee Culture in the United States.

Whereas, The production and exportation of honey is an honest and honorable industry, of respectable and fast growing importance in the United States, the entire proceeds of which is clear gain to the country; and

Whereas, The business of the producer, and the health of the consumer are being jeopardized and damaged by the wholesale and retail adulteration of honey and the manufacture of deleterious compounds sold at home and exported abroad as "Pure American Honey"; now therefore, be it

Resolved, By the 30th General Assembly of the State of Missouri that our Honorable Senators be instructed, and our Members of Congress requested to introduce and have enacted into laws, measures for the protection of said interests, by the suppression of the evils herein complained of.

LARGE YIELD.—The following was read before the Carson City Convention, and is sent to us by the Secretary as a specimen of one of the largest yields on record. It was given by D. Gardner as the result of his apiary for 1878, which consisted of 46 colonies of black bees. In it he has not included the honey used by his family or given to friends. The work of the apiary was all done by himself. The total yield of honey is about 5450 lbs..

RECEIPTS.

1671 lbs. comb honey.....	\$255 54
1455 lbs. extracted honey.....	142 05
32½ lbs. beeswax.....	8 04
25 colonies sold at \$5.00 each.....	125 00
Total cash received.....	\$530 63
5¼ bbls honey on hand.....	\$170 00
150 lbs comb honey on hand.....	23 00
21 colonies increase, @ \$5.00.....	105 00
200 extra combs built this season.....	20 00
Total income.....	\$848 63

This is an exceptional case, and should not lead any one to expect like results.

☞ We received from Mr. J. W. Winder, on New Year's day, some bloom of the Japan plum and roses, which he had just taken from the trees in his yard. They were fresh and fragrant. There he says the thermometer indicated 60°. In Chicago it was about 20° below zero. Truly, we have a vast country, with all kinds of climates. Mr. A. S. Collins, of New Orleans, has sent us some bloom from this Plum.

HOW TO EXHIBIT BEES.—Thomas Brasel, of Portland, Oregon, asks how to prepare bees for exhibition at fairs, whether they should be confined to the hive—and whether they should be placed in a light or dark place in the pavilion? Of course they must be confined, for the time being, but there is no necessity for them to be placed in the dark, else how can they be exhibited? Such are usually objects of much interest at a fair, and all want to watch their movements.

☞ The first number of the *Bee-Keepers' Instructor*, is on our table. It contains 12 pages, but no cover, and is published by S. D. Reigel, at Adelphi, O. The printing is fairly done, but the edges are untrimmed, and the stitching is suggestive of the want of modern ideas in publishing, as it is done on a sewing machine. Mr. R., has a hive much like Hill's American Hive, and sells apiarian supplies, and that may be the object of the existence of the *Instructor*. The following glowing account of profits, by the editor, looks that way:

"The profits realized from intelligent bee-keeping average from 100 to 200 per cent. on the capital invested. Taking into consideration, then, the great progress made within a few years in this industry, may we not reasonably expect it will, ere long, be classed among the leading industries of our country, and show a revenue of untold millions?"

GOOD AND BEAUTIFUL.—Our readers who are not acquainted with the fact may be benefitted by being informed that one of the handsomest Magazines in existence is *Vick's Illustrated Monthly Magazine*, published by Mr. JAMES VICK, Rochester, N. Y. Each number contains one or more beautiful *Colored Plates*, representing some flower or family of flowers, worth more than the price of the Magazine.

☞ The Rev. L. Johnson, Walton, Ky., writes: "Success to the *AMERICAN BEE JOURNAL*; the January number is worth more than the whole volume costs."

☞ John Scheerer, Ridgely, Mo., thus describes his one-cent honey board:

"Tack a piece of muslin about the size of the honey board to the lower side of it; make an opening through the board to pour in the feed, and a thin strip to cover the opening. With this, bees can be fed any time, being immediately over the cluster."

How to Protect an Apiary.

Mr. F. W. Chapman asked in our last issue, how to protect an apiary from human robbers. Below we give two plans as suggested by our correspondents. We have a plan of an electric arrangement which will be published in our next JOURNAL:

Bristol, Vt., Jan. 10, 1879.

The best plan I know of, and one that has always worked well with me, is generosity and kindness! I have one apiary 5 miles from home and $\frac{1}{2}$ mile from quite a settlement, which has no other protection from robbers, and I do not know that I ever lost an ounce of honey or a hive of bees! In the honey season I always have a plenty of honey and spoons expressly for visitors, and all understand that honey is free at this season of the year, and if my callers have any empty vessel they are supplied with a little honey to carry home. I have an apiary at home together with a large number of grape vines and other fruit in the heart of quite a village, and I have never had any bees, fruit, or honey stolen. The boys all know that if they call on us they will be supplied with what they want to eat. I advise all who are troubled with human robbers to try this plan, and I think they will soon find that the ones who now steal from them, would fight for them, if necessary.

A. E. MANUM.

ANOTHER PLAN.

I consider the business end of a bee the best protection against robbers in the daytime. In the winter the best plan is to have the bees in a house under lock and key.

To protect them during summer nights, the time usually taken for stealing, build a fence around the apiary sufficiently high to keep a ferocious dog inside. Have only one entrance to the yard and keep it locked up doing the night. Probably the best dog for this purpose is a blood-hound. Get a Cuban if you can, but one from the "Old Dominion" will do. I consider the blood-hound the best for three reasons. He will scent a stranger the quickest. He will always give a peculiar yell on scenting a stranger in the night. The blood-hound is reared in a land where the people believe in that kind of protection against thieves.

The next best is the bull or mastiff. Never get a half-blood, but get a full-blooded dog, and one that is true to his nature. Get a pup and train him your self. It is dangerous dealing in strange watch dogs. If they are good for any thing they will mind no one but the man who trained them.

When the dog is old enough to take charge of the apiary, chain him up in the daytime and turn him loose in the yard during the night. This will have a tendency to make him sleep in the day and watch in the night. Teach him that any one who comes into that enclosure except by the door is a "thief and a robber." If you have occasion to go into the yard when the dog is in there, never break the above rule, always enter through the gate, calling the dog by name before you

try to enter. Teach him that he has a perfect right to make a meal of anyone who climbs over the fence after dark. You may do this by having a stranger attempt to enter in the night, when you are near to hiss him on. After you have hissed him on, never call him off, if he is in the yard. In connection with the word you use to set him on use the words "get out." Never use these words at any other time.

In a short time you will have your dog trained so that when a man gets on to the fence in the night, and says, "get out," he will have to kill the dog to get any further. The dog meanwhile will give all the alarm necessary to arouse any one within a half-mile. Never allow him to give a false alarm.

The greatest objection to a watch dog is, it is possible for him to be poisoned. You may guard against this, by having a stranger approach and throw him something to eat, but you must not allow him to touch it. If he persists in so doing, punish him for it. Never feed the dog in the yard, but take his breakfast to him after securing him in the morning. Snap the chain into his collar and then feed him outside of the gate.

If these directions are followed I think they will prove the best protection against honey thieves.

WM. C. LEONARD.

Berkshire, N. Y.

Mr. Frank Benton is conducting the Apian Column of the *Michigan Farmer*, published in Detroit.

We have engaged to attend the Southern Kentucky Convention at Gainesville, on May 1st, and hope to see a large attendance.

We have received some exceedingly nice, white and smooth material for a section box, from Mr. A. E. Manum. It is very attractive.

We have in our museum a 6 inch comb foundation machine made by Mr. John Bourgmeier, with samples of comb foundation made on it. For a cheap machine, it does excellent work.

The *Bienen-Zuechter*, published by Dennler & Zwilling, at Strasbourg, the organ of the bee-keepers of Alsace and Lorrain, contains an unsolicited, notice of the AMERICAN BEE JOURNAL. Thanks.

Slabbekorn Brothers of Zeeland, Mich., have sent us a cap for hives, covered with shingles. 1,000 shingles will cover 80 hives and make them water-proof, but the labor of making the frame, sheeting and shingling we think will offset any advantage that may be claimed for it. It is added to our Museum.



SELLING RECEIPTS.—Many have of late written to us to inquire about several bee-receipt peddlars. There seems to be a host of such now flooding the country. One man in Missouri has paid \$5.00 for the following very interesting document, which we print *verbatim et literatim*.

IMPORTNAT TO BEE OWNERS.—How to keep out the Miller; Use Smalt's emery or pulverized glass, by sprinkling it on the hive before the paint dries.

What to feed to raise young broods; Take one part white of egg, and one part loaf sugar.

What to feed your bees: Use three parts rye flower and one part salt.

How to transfer bees; Blow smoke in the entrance of the bee, knock on the hive and the bees will go up in the hive, let them fill themselves with honey, then turn the hive upside down, and place your empty gum over it and knock on the empty gum.

How to tell when your bees are going to swarm; Go to your hive about fifteen days after the bloom has come, and if they are going to swarm you will hear the young queens around the bottom whistling, then prepare your hive as follows: Wash the hive out with sweet or salt water, place your hive ten feet in front of your hive, cover it over with green brush.

How to hive bees; Sprinkle about a pint of sweet water over them, let them stand a minute, then take a box and climb to where your bees are, and hold your box over them and tap on the hive, and the bees will walk up, then let your box down and place your hive over it and tap on it and the bees will walk up.

Home of bees, 18 inches high and 14 inches square, side winks 26 inches long 14 inches wide and 8 inches deep, slabs 1½ inches wide and one-half inch space between.

It abounds in peculiarities and nonsensicalities—such as “blow the smoke in the entrance of the bee,” the “whistling of the queen,” &c.

The pulverized glass would not do much harm to anything, but the “egg and loaf sugar” would not raise brood without pollen. Evidently the author of this costly receipt does not know what is meant by “transferring bees.”

The “whistling” he refers to, is only heard before the issuing of after swarms, as a rule, and then with many exceptions.

His hiving directions are a hundred years behind the times, and his hive must be a worthless trap.

☞ Science, not luck, gives success.

NEW FOUNDATION.—We have received a package of the *new* comb foundation, and it is a delight to look at it—so perfect, so transcendently beautiful is it, that one cannot view it without admiration!

That with wire, for use in the breeding apartment, is from 4 to 6 square feet to the pound. Without wire it is so thin that it will take from 10 to 12 square feet to make a pound. Capt. Hetherington says that after two years' experience he would not be without the wire in any foundation he uses in the brood chamber for any reasonable consideration. He has about 7,000 full frames of it.

One thing to be observed is the very fine side walls on some of the samples of the extra thin. The amount of wax in the side walls determines the number of square feet to the pound. This can be changed to meet the wishes of the consumer. We think, however, that a good bold side wall is advantageous enough to compensate for the extra weight of the sheets.

HIVES.—We have received at our Museum the following hives. “Shuck's Universal Bee Hive,” described on page 96, and “Elvin Armstrong's Centennial Hive,” described on page 91, and “F. A. Snell's Eclipse Hive.” Each of these gentlemen have a hive peculiarly their own, and are energetically at work introducing them. Each one is held in esteem by many apiarists, who favor the peculiarity found in each one. As before remarked, thorough and scientific management have more to do with success, than any peculiarity in the hive; for men will differ about the selection of a hive, as they do about selecting a wife, choosing a political creed or embracing a religious faith. There are hives enough now in use to please all, no matter how fastidious they may be.

☞ During the past year San Diego county, California, exported 1,490,240 lbs. of honey; (954,480 lbs. of it being comb honey, and 535,860 lbs. extracted), and 24,440 lbs. of beeswax.

STATISTICAL TABLE — FALL OF 1878.

Continued from page 357 of the JOURNAL for October, 1878.

NAME.	LOCATION. County and State.	No. of Colonies Fall of 1877.	No. of Colonies Spring of 1878.	No. of Colonies Fall of 1878.	No. Wintered out-doors.	No. Wintered in-doors.	No. Wintered packed in chaff	Comb Honey.	Ext'd Honey.	Beeswax.
Banes, Jos. D.....	Floyd, Ind.....	7	7	8	....	7	....	340	35	....
Boothe, H. K.....	Cortland, N. Y.....	46	43	62	3	43	....	3930	190	4
Burnes, W. T.....	Trempealeau, Wis...	2	2	4	....	2	....	80	....	....
Clarke, Geo. E.....	Medina, O.....	9	†12	23	9	....	9	200	300	....
Dick, T. H. & Bro.	Highland, O.....	57	57	71	57	....	13	2100	....	....
Doodge, S. C.	Hamilton, Tenn.....	14	14	29	14	....	....	300	250	5
Duncan, R.....	Winona, Minn.....	4	4	9	4	....	....	45	....	....
Edwards, W. P....	Onondaga, N. Y.....	28	26	29	28	....	28	955	279	15
Eggleston, J. F....	Warren, Pa.....	51	51	72	14	37	14	1300	700	15
Eley, E.....	Winona, Minn.....	6	4	7	....	6	....	12	....	....
Ensign, O. F.....	Defiance, O.....	....	1	4	....	....	....	40	20	....
Erwin, Jas.....	Warren, Ky.....	45	43	75	45	....	5	232	968	30
Evens, D.....	Winona, Minn.....	16	11	23	16	....	....	200	....	....
Farr, F. J.....	Jackson, Mo.....	75	74	†135	....	75	....	3800	75	25
Gardner, D.....	Montcalm, Mich....	....	‡46	67	....	....	....	1871	3595	33
Given, D. S... ..	Vermillion, Ill.....	36	†37	69	36	....	36	312	6000	40
Goodhue, F. A....	Trempealeau, Wis...	75	70	88	75	....	....	750	....	....
Hamilton, W. C....	Audrian, Mo.....	25	25	70	25	....	....	1000	....	10
Horner, G. W.....	Dubugue, Iowa.....	34	34	49	34	....	1	4000	3000	100
Isham, C. R.....	Wyoming, N. Y.....	....	....	135	....	....	....	10000	....	....
Kopps, Ch.....	Winona, Minn... ..	2	2	6	....	2	....	60	250	....
McColm, J. N.....	Sheboygan, Wis....	98	87	93	16	82	16	1520	700	16
McKinney, J. W..	Douglass, Ill.....	170	170	190	42	88	....	5200	....	....
Meyer, Jno. F.....	Wyandotte, Kan....	20	20	50	1	19	1	100	1500	15
Miller, C. C.....	McHenry, Ill.....	128	128	160	....	128	....	5000	....	....
Morris, Wm.....	Fremont, Iowa.....	54	54	82	54	....	54	130	6810	20
Newhans, H.....	Racine, Wis.....	18	18	42	....	18	....	....	299	....
Newton, R. L.....	Winona, Minn.....	22	18	33	....	18	4	....	....	....
Parsons, Geo.....	Winona, Minn.....	42	38	77	....	42	....	100	650	....
Patterson Jacob...	Butler, Pa.....	111	111	‡172	1	110	....	4000	....	50
Pennoyer, L. A....	Winona, Minn.....	2	2	9	....	2	....	25	60	....
Roberts, L. M....	Jefferson, Wis.....	55	53	69	....	53	....	150	500	3
Robinson, Frank..	Chenango, N. Y.....	9	9	16	9	....	9	257	148	5
Ruggles, S.....	Saratoga, N. Y.....	95	85	†192	....	95	....	9000	300	30
Sherffins, P.....	Winona, Minn.....	2	2	4	....	2	....	60	45	....
Smith, C. T.....	St. Clair, Ill.....	74	65	75	74	....	....	42	100	20
Stanley, G. W.....	Wyoming, N. Y.....	....	....	50	....	....	....	5000	500	....
Steed, A. M.	Warren, Va.....	54	54	87	52	2	52	300	350	12
Stickney, W. H....	Blackhawk, Iowa...	33	33	50	....	33	....	1000	300	13
Van Horn, G. A....	Lucas, O.....	11	‡8	20	11	....	11	....	987	24
Willep, T. J.....	Vermillion, Ill.....	....	6	12	....	....	....	....	500	....
Wolverton, Chas..	Vermillion, Ill.....	32	24	48	32	....	....	1400	....	....

REFERENCES.—* Estimated to the end of the season ; † Purchased some ; ‡ Sold some ;
 † Raised and sold queens.



Foreign Notes.

German and Austrian Convention.

BY RUDOLF MAYERHOEFFER.

I herewith present the many readers of the AMERICAN BEE JOURNAL with a short report of the XXIII Annual meeting of the German and Austrian Bee-keepers' Convention, which was held at Greifswald, in Pomerania, from the 10th to the 13th of Sept., 1878. About 900 bee-keepers were present and participated in the deliberations. The weather was excellent. The city has a population of 18,000. They are generally very intellectual, and of an exceedingly humorous disposition. Our re-union was quite an event for the exceedingly quiet community. Nearly all the houses being decorated with flags and the people in holiday attire. Although I have attended many similar meetings, I am obliged to avow that this was one of the most successful and interesting. The success was attributable to the very excellent preparation and management of the two Presidents—Count Behr-Negendank, and Professor Munter—and the Secretary, Lady Munter, an exceedingly accomplished and amiable lady.

The exhibition was grand, and demonstrated the state of perfection to which the bee-keepers of Pomerania had arrived in scientific apiculture. The display of honey and wax was splendid. M. De Corswant brought a nice collection of honey in the comb put up in fanciful shapes, resembling pieces of cheese, butter, oranges and other fruits.

Another exhibit in the shape of a crown, was very much admired. Still another displayed a nice comb, 3 feet in height!

Pastor Rabborn and his lady exhibited liquors made with honey, and fruits preserved in that delicious nectar.

Also boxes of honey, from 3 lbs. to 1 lb. each, known as Pomeranian honey, were exhibited. Many of such are exported to St. Petersburg annually. A very nice collection of these small boxes was displayed by M. Biesenshall.

In the group of bee hives some of the American hives were shown. Also the rotating hive from Riga, but bee-keepers did not generally approve of it. Another, intended for migratory bee-keeping, was exhibited by M. Hilbert.

The greatest attraction was the new invention of M. Pastor Knoblauch for artificially sealing the cells. It is called Columbus' egg, but I should call it Satans' egg. It can be of no practical use to bee-keepers. When honey is unripe, it is useless to seal up the cells. Only adulterators will favor it. The sealing is coarse and rough, but it may in time be improved, so that it may equal natural sealing, but of what use is it to honest bee-keepers?

The questions discussed I will leave to another letter.

The next meeting will be held at Prague. My proposition to make that meeting an international exhibition receives much favor.

Prague, Austria, Dec. 17, 1878.

Foreign Items.

GLEANED BY FRANK BENTON.

SWALLOWS.—Prof. Cook says in his "Manual," that, though European swallows do capture and eat worker-bees, in view of the good they do in destroying injurious insects, he would be slow in recommending the death warrant for them. Herr Julius Lippert, the learned author of the German work, "The Farmer's Guests in House and Yard, Meadow and Field," is a zealous defender of the swallows. He says in the work just mentioned: "Swallows live exclusively on flying insects, but not on such as possess poisonous stings. 'The editor of the *Bienen-Zuechter* remarks: 'We request our readers to make exact observations relative to the possible damages inflicted in apiaries by swallows, and to communicate the same to us. Let us, however, always be merciful toward these sprightly little creatures, which, only now and then, when other food fails them, attack our bees.'"

MELILOT.—Of melilot (*Mellilotus officinalis*) Ch. Zwilling, one of the editors of the apian journal of Alsace and Lorraine, says: "Its little pendant yellow flowers, disposed in delicate, elongated racemes, exhale an agreeable odor and are very rich in honey. They are assiduously frequented by the bees till they commence to fade."

HONEY ADULTERATION IN FRANCE.—From *L'Apiculteur* (Paris) the following is taken: "During the years of medium harvests, and consequent high prices of the product, adulterators spring up. Our attention is called to a suit pending at Amiens, between a purchaser to whom native honey was to have been supplied, and a Parisian dealer who, it is claimed, furnished instead, honey from Chili, re-melted and more or less sweetened. We shall endeavor to ascertain the decision of the jury. What ought to be asked of the judges, is, publicity of the decision, if they do not wish similar cases to be repeated; for the scoundrels fear neither fines nor imprisonment; they only fear publicity, which alone is able to keep them from becoming rich.

"We will not change the subject much if we proceed to consider the enticers—those who deceive the public by means of labels, and they are quite numerous. There are, for example, those who deal in honey said to be from Narbonne, Chamouny, the upper Pyrenees, etc., but which is gathered at Pantin or Pontoise (villages in France).

"For some time there has been before the stores of dealers in comb honey the advertisement in large characters: 'California honey,' by the side of that announcing Mocha from Zanzibar or from Pondicherry (read: chicory from Cambray). It appears that the consumers who have suffered themselves to be taken by this and have tasted of honey fraudulently labeled as coming from the land of golden ingots, have found at the first trial the expression which best tells the quality of it: 'Pooh!'"

Correspondence.

For the American Bee Journal.

Something About Bee Hives.

BY G. M. DOOLITTLE.

Ten or fifteen years ago Langstroth, Quinby, Gallup, and others, gave as a standard hive, a brood-chamber of 2,000 cubic inches; while others went so far as to say 2,500 to 3,000 were preferable, and this for box honey, as the extractor was unknown at that time. The Langstroth hive held 10 frames about $16\frac{1}{2} \times 8\frac{1}{2}$ inside measure, which would give about 2,175 cubic inches inside the frames, or 1,450 square inches of comb. To-day we have many who advocate a hive for box honey of like capacity while a few prefer a brood-chamber of about two-thirds that size. As the size of the brood-chamber has much to do with the average yield of box honey, perhaps it would be well to look into this matter a little. Queens as a rule will not occupy more than 800 square inches of comb with brood for any length of time; therefore it will be seen, that if we use 10 Langstroth frames, we have 650 square inches of comb to be occupied with honey and pollen. In case we have a new swarm in such a hive we shall have from 500 to 600 square inches of comb filled with the best of honey which would be from 25 to 30 lbs. We are told that this extra room is needed in case of a poor season so as to insure honey enough for safe wintering. So each year our bees are wintered on from 25 to 30 lbs. of the very best of honey which should go in the boxes and be turned into cash, and in case of a poor season the bees should be looked after to see if they have honey enough for winter and if not, they should be fed sugar syrup, if you do not have a surplus of extracted honey. In order not to get any pollen in our boxes we will allow 200 square inches of comb (above the 800 the queen occupies) for that and the little honey they always will have in the upper corners of the frames, so we have 1,000 square inches comb space or about 1,500 cubic inches as the right size for the brood chamber, regardless of what style of frame is used. Of course the frames will not always give just this number of square inches inside of them, but use the number that comes the nearest to it. For instance I use 9 Gallup frames which give 1,035 square inches of comb, while if I used but 8 it would give me but 920. To get the square inches of comb in the frame,

multiply the length by the depth, then use the number of frames which come the nearest to 1,000 inches. Mr. Gallup used 12 frames in his hive and as he was my teacher, I of course, used the same number. But some 5 years ago I reduced them to 9 by using 3 blank boards in place of the frames. The number of frames can be reduced at any time in this way, with but little expense, and that too without disturbing the hive at all. These boards are made of inch lumber, the size of the inside of the hive (fitting loosely) below the rabbets with the top bar of a frame nailed thereto, so it hangs in the hive just like a frame. I call them division boards, as I use them in building up weak colonies, securing straight combs, &c.

Hives should be so made that all the bees can be kept profitably at work, and if you have a three frame nucleus well supplied with bees and a queen, you should be able to get just as much box honey from it, in proportion to its numbers, as from a full colony. Unless a hive is calculated for this, it is lacking just one important feature. Also, to secure the best results, the hive should be made so as to admit of the use of side boxes as well as top, and these should be interchangeable, so that the partly filled boxes at the sides can be raised to the top as the full ones are taken off, and empty boxes with starters placed at the side, in place of those raised to the top, on the principle that bees build comb faster at the sides, and store honey faster at the top.

By this plan you have boxes in all stages of advancement and this obviates the difficulty, so often experienced, of having a full set of boxes come off at once. We all know how loth the bees are to take possession of a second set of boxes when a full set has been taken off.

To get the bees started in the top boxes first, the center tier should have full combs in them, so they may come off first. But no hive, however well adapted to securing surplus honey, will give large returns unless properly managed. It is the management of hives that gives the practical apiarist good returns of snowy-white comb honey such as sells readily in any market, when a second quality would be a drug. The hives must diligently be looked after from the time spring opens till the bees are ready for winter.

One secret of success in getting box honey is to get the brood combs all occupied with brood before the honey harvest commences, so that when the harvest opens, the bees are obliged to put the honey in the boxes, or not store



any at all. If we use a small brood-chamber it will be seen that the brood comes clear to the tops and sides of the frames or hive, and consequently very close to the boxes, both at the sides and top, hence the bees readily enter the boxes, while with a large brood-chamber, the bees store the comb the queen does not occupy, with honey at the beginning of the harvest, so that the boxes are excluded from the brood by several inches of sealed honey, therefore they do not readily enter them. This I think fully accounts for our hearing so much about the Italians not entering the boxes as readily as the blacks.

I never yet had a colony of Italians refuse to go into the boxes, when they were in proper condition for storing honey. Mr. Gallup was aware of the fact, that the combs must be filled with brood and not honey for profit, for he says on page 6, Vol. IV., AMERICAN BEE JOURNAL: "We must never allow the bees to get in advance of the queen, for if we do, the prosperity of the colony is checked at once; that is if the bees are allowed to fill the combs with honey in the spring before the queen has filled them with brood, the colony will be an unprofitable one."

We cannot get honey without bees, 1,000 square inches of comb as given above, as the right size of the brood-nest, will give (exclusive of pollen) 45,000 worker bees every 21 days, and a queen that is good enough to be kept, will keep these combs full of brood. If you have on boxes with such a force of bees as that in July and August; but give the same queen but 5,000 to 10,000 bees, and these old ones, they will crowd her down so as to be unprofitable every time.

Then, again, the boxes should be managed so that in the fore part of the harvest the bees are incited to greater activity by putting empty boxes where they will take possession of them the most readily, while towards the close, the box room should be reduced so as to have them finish the partly-filled boxes in preference to starting in new or empty ones. Thus we should strive in the fore part of the honey harvest to get them at work in as many boxes as we can, and at the latter part strive to make them finish all they have commenced to work in. Thus we have but few boxes that are part white and part dark honey, or but partly filled at the end of the season. Much more could be said on the subject, but this article is already too long. My next article will be a description of the hives I use.

Borodino, N. Y.

For the American Bee Journal.

Clethra Alnifolia, or Sweet Pepper.

BY A. PARSONS.

Here on the Atlantic coast, if bees winter well, and are strong swarming occurs in June, and again in August, when the sweet pepper bush comes into bloom. Our people and the school children call it honey dew, from its delightful odor; in fact, the plant is known here by no other name. I found by analysis that both Gray and Wood give it the name of *Clethra Alnifolia*; but sweet pepper bush is much the sweeter name to me. I have a fancy for the common every day names, and for this reason prefer Wood's class book of botany to Gray's; he has more technical terms and I think Wood's much easier. I learned botany from "Wood's class book," and perhaps should not express my opinion in favor of it. I use Gray's large work as reference merely.

The sweet pepper grows wild here in the greatest abundance in the swamps, and wet places, and I never knew it to fail to bloom from any cause whatever. Dry seasons do not affect it, because its home is generally in wet places; and again no cold appears ever to harm it. The honey is about white, thick and of fine flavor.

I send you a picture of the *Clethra Alnifolia* which is a correct and beautiful likeness, bringing the dew of honey before one; also a glowing description of the same.

[This hardy flowering shrub is well illustrated by the excellent engraving on the opposite page which we have obtained from Mr. J. W. Manning, proprietor of the Reading, Mass., Nursery, of whom plants may be obtained. In Mr. M's catalogue we find the following description: "Its leaves are light green; flowers are pure white, in spikes 3 to 6 inches long. A group of this *Clethra* in bloom will perfume the air for 20 rods around; a handful will fill a room with its delightful fragrance. It blooms from July 1st to September; its cultivation is simple, growing to perfection where the lilac will succeed. It never fails to bloom after a hard winter.

"Its effect is impressive when grown in large masses, as produced by a dozen or more plants set in a group. It has never been so well shown to the public as in Central Park, New York."—ED.]



CLETHRA ALNIFOLIA, OR SWEET PEPPER.

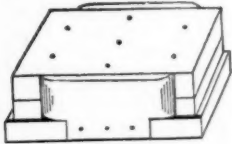


For the American Bee Journal.

Block for Nailing Prize Boxes.

BY C. H. DIBBERN.

After a good deal of experimenting and some failure, I have hit upon a block for nailing, that I think is hard to beat. Take an inch board a sixteenth of an inch larger than the outside of a prize box; then take two pieces 1 inch thick and a sixteenth of an inch smaller than the inside of the box; then nail on the first in such a way that the grain of the wood of the middle piece will run crosswise to the two outside pieces. This is to keep it from warping. Now take two pieces of Russia iron, such as is used for stove pipe, about 4 in. long, by 3 in. wide; cutting 1 in. square out of the corners on one side. Nail the pieces



to the block, so that the notched side shall be nailed to the largest piece of the block. Bend the iron slightly at the ends, so that the spring in the iron will hold the pieces to make the box, firmly in place, till nailed. This block is very neat and handy and not at all inconvenient to use. Sections, if careful, will be perfectly true, and are quickly made. I think a person can nail one-third more than without a block, and do it much better.

Milan, Ill.

For the American Bee Journal.

Careful Handling of the Bees.

BY C. F. GREENING.

I see that I was elected one of the Vice Presidents of the North American Bee-Keepers' Association. Unavoidable circumstances excepted, I shall be present next October, and will gladly contribute my mite, towards making the Association a success. Never having met with a body of bee-keepers, I hope to learn, and shall eagerly look forward to the time when I can have an interchange of thought and ideas with the best bee-keepers of the United States.

UNTESTED QUEENS.

I am pleased to see the discussions in regard to "cheap queens" and wish to array myself *against* the dollar queen army. I have raised many queens from

imported mothers, but cannot afford to raise them at that price, *and never will*. I have paid \$15.00 for one queen in the fall, and the next year she paid me back over \$50.00, in honey, swarms and queens. Since I bought her, I have 30 colonies from her. I get a new imported queen every year or so, to infuse new blood in my stock. The best always in the long run pays best. I claim to keep up to the highest standard of purity, size, color and prolificness. Amiability I do not strive for. For I claim if we use our pets well, they seldom injure us. But if we kill a few of the most amiable bees in the world, some of their friends are as certain to take it up, as we would if our friend were ruthlessly murdered—the most amiable of us would be very liable to seize the first weapon we could get hold of, and inflict summary punishment, if the offender were caught in the act.

HANDLE BEES WITH CARE.

Careful handling will cure nearly any cross bees, and careless handling make the most gentle ones cross. In handling my 50 colonies the past season, I have found it necessary to protect myself but once or twice. With a Bingham smoker in one hand, and coat off, I find no difficulty in transferring, dividing, doubling, or doing any needful work among them. One main secret I claim in handling bees, is for one person only to manipulate them. I am positive they get to know their keeper, as well as a horse or cow knows its master. I have lain for hours with my face not a foot from the entrance of a hive, watching the different work going on. A poor tired bee alights on my face to rest with his load after a long weary flight, do I brush it off? No! In a few moments it flies to the entrance, and is at home. Had I injured my friend, what then? It would have resented it, and so would the rest of the family. I never kill a bee when it is possible to avoid it. I once killed a queen that I wished to supersede, and carelessly left her on top of the hive. Shortly after, I passed the hive, when, lo and behold, the colony had found her, and there they were all piled on top of the hive, trying evidently to warm her back to life, or at least to remain with her corpse. They left house and home, willing to brave any danger, for the love of mother was uppermost. It was so human-like, that I never liked to kill a bee since. I put them back in the hive and in a few days gave them a capped queen-cell and in three days more they had a new queen, who destroyed the cells started in their

endeavor to replace the dead queen. The past year has not been a good one for bee-keepers in this section of country. The very late spring, then a short hot spell, up to July, and drenching rains with scalding sun, used up the forage. Fall flowers did fairly, and gave stores for winter, but little surplus. On the whole, bee-keeping had little money in it for the season just ended. Grand Meadow, Minn.

For the American Bee Journal.

Improvement in Italian Bees.

BY DR. J. P. H. BROWN.

Can the Ligurian or Italian bees be improved? is a question of vital importance to every bee-keeper. We know that there is a universal law pervading every department of animated matter by which improvement on development can be wrought to a greater or less extent. The higher the organization the more perceptible the workings of the law. We have living illustrations of this in our breeds of cattle, sheep, hogs, poultry, dogs, etc. The highest type of illustration is in the human family.

This law of susceptibility to improvement pervades even the vegetable kingdom. Our present fine varieties of potatoes are said to have originated from a wild, insignificant tuber discovered in South America. Our magnificent apples are said to have originated from the Siberian crab. The luscious peach from an unpalatable fruit in Asia. Our pears, plums, cherries, and in fact, all our fruits have only been brought to their high degree of perfection by this same law. We have abundant evidence, and reason to believe, that this power or capacity for improvement can be brought to operate in the development of many desirable qualities of the honey bee.

That the Italian bee, all things considered, is superior to our native black bee, is pretty generally admitted by all our best and most intelligent bee-keepers. We know it has, first, a better honey-gathering capacity; second, it is more easily handled; third, it defends its hive better from the larvæ of the bee-moth; fourth, it has more strength and power of wing; and fifth, it is more graceful and beautiful. These are all very desirable qualities, and admit of improvement. But this improvement can only be wrought, and the standard maintained, by a rational course of selection and breeding.

We see much said in the JOURNAL,

about the deterioration of the Italian stock. The chief trouble lies in the many queen breeders who have no natural qualifications for the business. Queen breeding requires, for its success, more care, precision, science, tact, industry, and promptness of execution, than the majority of bee-keepers possess. The result is defective bees and queens.

Another very serious injury to the improvement of our bees, has been the disreputable practice of some venders of bees, wares and "clap traps," of scattering broadcast imported queens of "doubtful reputation," thereby introducing every degree of mongrel blood. As an inducement to purchasers of such queens, the price asked for them is far below the actual cost of reliable first-class ones. The falacy that all the bees in Italy are pure stock soothes the consciences of the purchasers.

Good breeding stock can only be obtained by a process of most careful selections of both queens and drones. The most essential point is, *individuality* of character in our queens. The stronger this is, the more likelihood of the progeny being impressed with the qualities we desire to secure, and the less liable it is to breed back; for it should be borne in mind that the Italian bee is only a variety, and not a distinct breed or race, and is hence liable to revert toward the original.

No breed of anything can be much improved or developed without some standard of purity or attainment. And if we are to follow the advice of some of the bee-savans of very recent birth in regard to Italian purity we will soon find ourselves breeding out a distinct variety of the honey bee into no breed at all. We commence to drift into mongrel chaos the moment we lose sight of the markings of purity—the three abdominal bands—as recognized by the early importers of Italian queens into this country and into Germany.

Besides the careful selection of queens with due reference to the desirable qualities we wish to secure, it is absolutely necessary, in order to rear the best queens, for all the conditions upon which the development of queen-life depends to be as perfect as possible.

When these conditions are all right, we may expect good queens, but fine queens without pure drones to fertilize them will make but little progress toward improvement. However plausible and correct the Dzierzon theory of pathogenesis may be, it is always best if any doubt of it should exist, for



the breeder of queens to avail himself of the doubt and only use the drones from tested queens for copulation. We have many nice theories, all very scientific and supported by high authority, that when thrown into the refining crucible of actual practice, give off a little base metal.

Some few conditions in queen breeding, such as psychical state of the bees, atmospheric, and possibly electric, are not always under the control of the breeder. There is no doubt but the shade of our queens is dependent in a great measure upon the state of these conditions. Until some apistical genius steps to the front with a more available and practical plan of fertilization in confinement than has yet been offered, queen-breeders will be compelled to rely on the old-fashioned process of copulation on the wing; and as long as this old-fogy plan exists, it is highly important to have the surroundings of your apiary as free from impure drones as possible.

With pure stock to breed from, and all the intelligence, science, tact and skill that can be brought to bear upon it, I have great hopes that the Italian bee of a few years hence will be far superior to anything we have now.

Augusta, Ga.

For the American Bee Journal.

Adulteration, Pure Italians, etc.

BY R. M. ARGO.

MR. EDITOR: I am glad to notice that the BEE JOURNAL has made vast improvements during the past year, and I hope it will continue to improve at the same rate during the present year. The reduced price should place it in the hands of every bee-keeper, even if he has only four or five colonies. To a bee-keeper of at least 25 colonies it is worth ten times its price.

ADULTERATION.

My honey all sold well this year. I sent off one barrel at 10 cents, but afterwards had cause to wish I had not done so, for the balance sold at home, readily, at from 12 to 18 cents for extracted, and 20 for comb. This is the first time for many years that I have no honey for sale at this time. I have generally kept back enough to have honey for sale from one season to another.

Our state has a good law to protect bee-keepers, passed by the legislature, April 10, 1878, (See page 232 AMERICAN BEE JOURNAL). All it lacks is

enforcement, which I hope it will receive. This law may have something to do with the good sale of *pure honey* this season. If every state had such a law, not only on honey, but to protect every kind of syrups and sugars, and would see it enforced, we should have no more vile, poisonous stuff to compete with the sale of the pure article. But too many of our laws are dead letters on our statute books. If any one doubts this let them look at the law against murder in this state. I do not believe that any sugar except the New Orleans is safe to go into any one's stomach the year round at these times of poisonous adulteration by the city refiners. Our revolutionary fathers and mothers outlived us, but they were not accustomed to anything adulterated.

FERTILIZATION IN CONFINEMENT.

Mr. Hashbrouck, on page 385, gives a new method on the above never tried by me. I hate to say another word on the subject, for fear, as he says, "It is a strange fact that bee men generally consider the thing so preposterous, that they will not try to see whether it can be done or not."

Now I do not want any one to be discouraged from trying all they can, from anything I have written on the subject, but I have tried almost every conceivable way, and failed, and for myself I shall not bother about it any longer. But if the thing is possible, the man who discovers a safe and reliable method of controlling the impregnation of the queen with a select drone will confer as great a benefit to bee-keepers as Langstroth did in the invention of movable frames, and should have a gold medal awarded him, also one dollar by every bee-keeper in the United States, even if there are fifty thousand of them.

ITALIANS VS. BLACK BEES.

James Heddon is all right at last on the "Italian Bees," page 436. A few years ago he wrote against the Italians, and in praise of the blacks and hybrids in such a way that I did not fully understand whether he was for blacks or hybrids.

In the fall of 1877, while removing some hybrids, as I do every fall, I sent him an extra prolific one, thinking that was his favorite bee, but in due time I received a postal from him stating that I had misunderstood his article; that he was for a leather-color, pure Italian. Just the sort he describes in the above article. I do not differ with him a whit in this last article, for I

have for several years contended that there was much difference in Italian bees. Some strains are no better, if as good as the blacks, while others are far superior; and I have invariably found this superior strain a shade darker (or rather leather-color), than the bright strain; but there are exceptions even to this rule, for one of my brightest colonies give 125 pounds, and is very full for winter. No other did as well in such a poor season as this. This rule also holds good with black bees. I knew, a few years ago, of an apiary of black bees, in a good location, to do nothing for 7 or eight years, while some others in the same neighborhood, but perhaps not as good a location, were doing well. I once had the same sort of Italians that so disgusted friend Heddon, but owing to the nature of that season I found them better than the blacks. I had then several black colonies in the same yard, and it was one of the poorest of seasons. No surplus at all; but the Italians had made enough to winter on, while the blacks had to be fed. The bright ones I now have are better than the bright ones I had 6 or 7 years ago, as I have been improving my bees for years.

While on this subject I will say a few more words on a

STANDARD OF PURITY FOR ITALIANS.

In my last article on that subject, I stated that it would be no easy task. I now say, that so far as the color of the queen is concerned, it will be impossible; for she will have to be judged by her progeny. Every bee-man of long experience knows that every black queen does not duplicate herself; or in other words, they are not all alike; some are larger than others; some are coal-black; some so light that it is hard to tell the difference between them and Italians. It is just so with Italians. The dark or different colors are no evidence of impurity. I have found in my experience that the comb they are hatched on has some influence on the color of the queen; as for instance, raise a batch of queens in old black comb, or at a time while the bees are not gathering honey, and they will be apt to build the queen cells from the old black comb. They are considerably darker than any raised from the same queens in new comb, or while the bees were gathering honey, for the bees would then build the cell of new wax, even if the comb was old and black. I prefer a bright leather-color queen of good size, with black on tip of tail, and good sound wings. Each of the workers to show

three plain regular golden bands, long tapering abdomen and long wings; but I think that the more regular the golden bands, the better. I notice for years that the best imported Italians have the three bands finer and more regular than our home-bred ones.

The drones should be longer and yellow, with three wide bands, and as even and uniform as the workers. I make it a practice to destroy all drones that do not come up to the standard. I also remove all queens, no matter how bright and beautiful, if they are not prolific. I have had queens hatch out almost black, and yet turn yellow soon after impregnation. Last year I had one hatch almost as dark as a black queen, and in July she was among the very brightest queens in the apiary. I have also had some look very bright the day they came out of the cell, and yet turn several shades darker as they grew older.

I would advise all queen raisers to breed from their purest and most prolific queens, whose progeny are the best honey gatherers, and to use new comb to start the cells on.

For the American Bee Journal.

Glucose—Imported Queens, &c.

BY THE REV. A. SALISBURY.

The war having opened, I hope the JOURNAL will continue to throw "shot and shell" into the ranks of the enemy, until glucose will every where, be sold only by its proper name.

IMPORTED QUEENS.

There is no doubt but that the last National Convention, did a good thing when it gave its influence against a farther and promiscuous importation of Italian queens.

We now have the Italian bee in all its markings of purity, and good qualities. Americans, without doubt, will make a greater effort to improve these good qualities than almost any other people. Prices are so low that no importer can afford to discard worthless imported queens. It is also true that queen breeders will be compelled for a while to breed considerably from imported mothers to meet the demand.

PROLIFIC QUEENS.

I feel somewhat inclined to advance an idea slightly in conflict with the opinions of many good men. Are dark colored queens most prolific? From some cause they seem to have gained the preference. Why should it be? Perfection is the true type by which we judge. Fecundity, bright color, in an



Italian queen, if pure, is a mark of perfection, for the simple reason that good nursing, plenty of food and heat, develop the brightest queens. So the bright color seems to be a mark of perfection.

CYPRIAN BEES.

If Cyprians are better than Italians, let us have them; if not discard them at once, as they will adulterate our fine Italians. I had 2 last season, that when tested, proved to be worthless.

Camargo, Ill.

For the American Bee Journal.

Shade for Hives—Wintering, &c.

BY J. H. MURDOCK.

I had 51 colonies last spring; took 1,500 lbs. of comb honey, 100 lbs. of extracted and 15 lbs. of wax from them, besides 18 colonies of increase. These I have now put up in boxes packed in shavings, for the winter (a model of which I have sent you,) all have plenty of stores, and I feel sure they will come out strong in the spring.

I see that a correspondent, says that bees need no shade. It may be that with the chaff hive, he does not need any, but with a single-walled hive, they need shade, if you wish to keep down the swarming fever. I have used a cloth shade for 3 or 4 years. I take 1½ yards of cotton cloth a yard wide, hem the ends, putting on some loops made of number 20 annealed wire on each corner, large enough to go over the ends of stakes, get some strips of waste lumber 1 or 1½ inches wide, cut them into strips about 4 feet long, sharpen one end, and drive 4 of them into the ground around the hive to hold the cloth and keep the sun from the hive from 9:30 a.m. till 4 p.m. I have tried grape vine shade, and trees, but like the cloth best. These shades will cost about 10 cents each and will last 5 years. I take them in before it rains, and in cloudy weather.

WINTER QUARTERS.

To prepare a hive for winter, I bore a 1½ inch hole in the center of the back end of the hive, 3 inches from bottom, take off the cap and boxes, and place over the frames a quilt made thus: Take 4 strips 1x1½ inches and make a frame the same size of the hive, 1 inch high, putting 2 or 3 strips ½ inch square through the center of the frame to cross the frames in the hive, to let the bees run under them; fasten these up even with the top of the frame; put on two thickness of cotton cloth; bringing it over the edge of frame, tacking it all

around; put this on the frames, and the hive is ready for the box.

The box for winter quarters is made thus: Have the sides, bottom, top, front and back made independent of each other. The front is 6 inches higher than the back, and the sides slant to fit. This box is made of rough lumber, except the cover or roof, which is planed on top and the cracks covered with planed lath and painted. The cover is 8 inches long and 6 inches wider than the top of the box. The tube is 1½ inches in diameter with a ¼ hole and 6 inches long. The alighting board is made of a 2x4 and cut 6 inches long; run this crossways, to give the board a pitch and it will keep dry. Drive 2 nails without heads, half way into the thick part; make 2 holes in the box under the tube to correspond with the nails, so that it can be placed on any box. These should be painted different colors, to prevent the queen or bees from mistaking their hives.

I get shavings from the planing mill which lie closer together than those made by hand. Four cents will pay for a barrel of them, which will pack one hive. The space around the sides of the hive is 4 inches; and 6 inches above and below.

I have used them for 5 or 6 years and have never lost a colony in wintering. I have made 45 of such boxes this fall. They cost about \$1.00 each, and will last, 10 years.

Dexter, Mich.

[The model is placed in our Museum, and we confidently await the result of the present severe winter.—Ed.]

For the American Bee Journal.

Imported Italian Queens.

BY AARON BENEDICT.

By my experience as well as information received from Italians and those who have visited Italy, I conclude that nearly all the bees there are crossed with the blacks. In some districts they may be lighter. Selecting such to breed from would save years of labor in improving the race. I would not breed from an imported queen, unless she was far above the average of those now sent to this country.

My opinion of the markings of pure-bred Italians is that a queen should produce workers all having three distinct yellow bands, and duplicate herself.

If we rear queens from one that produce all shades from black to three-banded workers—should the bees take larva that would have been a black worker, to rear a queen from, it will be black; if they take larva that would have produced a three-banded worker, then the queen will be light-colored.

Bennington, Ohio.

For the American Bee Journal.

Can Honey be used to Cure Consumption?

BY L. L. LANGSTROTH.

In the spring of 1861, my wife, being quite feeble, went East for recuperation. Instead of improving, her health rapidly failed. When she started for Oxford, in the fall, some of her friends feared that she might never reach there alive. She was very much emaciated, had constant night-sweats, a distressing cough, and the usual symptoms of a speedy decline. Anxiously studying what remedies could be used with any hope of success, the following considerations determined me to make a trial of the curative powers of pure honey:

1. I had noticed that from the time of Hippocrates, who wrote more than 2,000 years ago, even down to modern writers, there was a strong and continuous testimony in favor of the virtues of honey in curing or alleviating all diseases of the breathing organs. Charles Butler, a very learned and accurate writer, in his "History of Bees," published in 1634, asserts "that it breedeth good blood, stirreth up natural heat, and prolongeth life;" referring largely to the ancients for his proofs.

Now, what logicians call *communis consensus humani generis*, "the common agreement of the human race," on any matter fairly within the range of their observation, has always been considered as coming very near to demonstration itself.

2. About this time I received from the late Dr. P. J. Kirtland, of Cleveland, Ohio—the mention of whose name will inspire in a wide circle a deep feeling of reverential consideration—a letter informing me that one of his pupils had discovered that honey mixed with some other ingredients (honey, however, being the main thing), was a much better remedy in consumptive cases than cod-liver oil.

3. Nearly at the same time I received a printed statement of the various exhibits of bees, hives, honey, &c., made at the World's Fair at London. The name of the Countess Olga, of Russia, was given as exhibiting some linden or basswood honey—"oleaginous honey," so called—with the statement that this kind of honey is in some parts of Russia and Persia in higher repute for curing consumption than cod-liver oil. Linden honey having a decided balsamic odor, as well as an oily nature, may possess some peculiar curative virtues.

4. The bee is almost the only insect known to possess animal heat. To sur-

vive the winter, it must live in a colony state; for in no other way can it generate and preserve the requisite temperature. This heat, of course, comes from its food. To suppose that the Creator has not made this food specially heat-producing, would be like supposing that a good engineer who wants to get up most economically a given amount of steam, would prefer to use soggy wood or slaty coal. We need hardly say, therefore, that chemistry confirms the old belief that honey is a specially heat-producing food.

5. Consumption is derived from the Latin word *consumere*, to waste, to burn up. The system of a consumptive person is in such a diseased state, that it fails to obtain from the food taken, sufficient nutriment and heat. It seeks, therefore, to make up the deficiency by preying upon the fatty tissues. When the body becomes so emaciated that this can no longer be done, the patient dies: just as the fire goes out when the fuel is all consumed. To prevent the diseased system from thus consuming itself, physicians have recommended cod-liver oil and other heat-producing substances. But if honey "breedeth good blood and greatly stirreth up animal heat," may it not prove one of the most potent and pleasant remedies for consumption? A very aged man once being asked by Alexander how he had secured such a vigorous old age, replied: "By honey within and oil without"—that is by eating honey and anointing himself with oil.

Having duly weighed all the above considerations, I gained the consent of my wife to make a faithful trial of honey. It occurred to me that its efficacy could be much better tested by using it in *small quantities and at very frequent intervals*, than in any other way. If one wishes to keep up a uniform temperature in a room, by the use of a given amount of fuel, it cannot be done by using a large amount at once, with all the dampers open; but by gaining complete control over the combustion, so that the heat can be regularly supplied. This idea of small but oft-repeated doses is new, I think, and very important. If we should "eat honey because it is good," we should also, on the same good authority, "eat not too much," lest its too free use be followed by nausea and loathing. Acting upon my suggestions, Mrs. Langstroth took a teaspoonful of pure honey, out of the comb, at least every hour when she was not asleep. She had not taken it long before it was evidently helping her. Her worst symptoms began gradually to disappear, and in about a year, she



had regained her usual weight. Although she did not continue to use it as frequently as at first, at no time, if she entirely left it off, did the bad symptoms fail to return. This confirmed us in the belief that the honey had been the chief agent in her improved health.

Very far be it from me, to presumptuously assert, that I have found a panacea for consumption, although in Mrs. L.'s case, it proved to be so highly efficacious. I believe that by its use Mrs. L., who had lost her mother and a sister from this disease, was able for more than ten years to ward it off. She died at last from a different disease, having enjoyed before her fatal illness better health than for some years. Taking into account the above train of facts and reasonings, I hope that any of my readers who are threatened with consumption, will give pure honey a faithful trial. If procured in the comb it should be *slowly* heated until the wax is all melted. When cool this may be removed like a cake of cold grease, and will be useful for many purposes. If honey is found to disagree with any one, it should be heated almost to the boiling point. Milk taken with honey often makes it more wholesome; and honey and cream would doubtless be more nutritious than honey alone. Some may prefer to follow the practice of the old man—both using honey freely, and anointing the body with pure olive oil.

Oxford, O., January, 1879.

For the American Bee Journal.

Dealers in Apiarian Supplies.

BY JAMES HEDDON.

This branch of our pursuit has had, and is still having a potent influence upon the success or failure of every honey producer in the world. No one can fail to see that the great law of specialism is as advantageous in the manufacture of our tools as of those of the farmer, or of any other class.

A good reason for specialty in the manufacture of our supplies, is that as soon as our bees are safely through the trials of the cold season, we are busy enough without any supply making. Before we know how many and how well our bees are coming through, is a poor time to put capital and labor into fixtures that we may not want to use, and are almost sure to soon be left behind as unworthy of use, being superseded by those much better.

Producers have been, and still are too radical in regard to the usefulness and

advantages of apiarian supplies. Particularly is this the case with those of less experience. While the manufacturers of a few of the useful and practical implements have blessed our pursuit, no class has done more to damage bee-keepers at large, than apiarian supply dealers.

If to sell us inferior hives and tools, that soon had to be thrown away, was all the damage, we could easily forgive and forget; but this is not a tithe of the loss we must suffer. The deception used in regard to the fortunes to be made at apiculture, will ruin many beginners, and severely test the strength of the veterans.

Some of these supply dealers, seeing a chance to make their patrons pay for the extensive advertising required by a large business, now publish their circulars monthly, and call them periodicals "devoted to the interests of honey producers." In them are puffed fixtures enough to cost a small fortune, and log the successful working of any apiary.

To cap the climax, the principal one of these supply dealers has now nearly ruined our foreign trade in honey, which market seems to be our only future hope. Of course he knows enough of human nature to see that to tell bee-keepers at large that glucose is a fine thing to feed to bees (only to rear brood), and is also a choice material to mix with honey as an article of diet (to be labeled "glucose and honey," of course), is to indirectly encourage fraud and consequent ruin to our pursuit! I am thankful that this man is fast coming into light, where we can all see him as he is, and lessen his power for harm.

Now let us see if we can come to an understanding of what is honest and just supply dealing. I will give you my ideas in part: 1. The dealer should give some public guarantee that he is responsible, and good for all money sent to him. 2. He should rigidly adhere to the "cash with the order" system, to enable him to deal on small margins, and tempt no man to dishonesty. 3. He should adopt for his business motto "justice," instead of "charity," and do business like an honest man, upon business principles, never playing "baby" to cover up wrong committed, or sins he intends to commit. He should be wise enough to know that the religious dodge is too old to catch business men. Bradstreet, and other commercial reporters, say nothing about the church a business man belongs to, nor the political ticket he votes. Neither do the men who are the back-bone of our country care whether one's children have "blue eyes" or gray—either are good enough.

The publications upon bee-culture are surely apiarian supplies. These, like all other supplies, are good or bad for us, according to the way they are conducted. After thinking the matter over and over again, I fully believe that had the AMERICAN BEE JOURNAL remained the only bee publication in America, honey would to-day command forty per cent. more, or nearly double the price it now does! Besides all that, thousands of dollars would have been saved that bee-keepers have paid out for worthless supplies.

I am taking but one bee-paper (the AMERICAN BEE JOURNAL) at present, and I do not see that I am losing anything by this change, and I am surely saving the subscription price, and the trouble of wading through a mine of twaddle, "Homes," A B C's, &c., to get at perhaps one or two valuable hints, which are sure to be found in the JOURNAL. No discovery of any value will miss the pages of that paper. I conceive that one paper is all we can afford these times. Besides, I believe that we are actually *better off* with this one, than with all the others. I have made my choice, but shall change whenever I see a better paper than the AMERICAN BEE JOURNAL. I am glad that this paper fathers no supply, but merely assists in the distribution of all that it considers worthy.

Now, Mr. Editor, I want to congratulate you upon the able manner in which you have conducted the BEE JOURNAL since it came into your hands. I conceive that you have worked for my interest, as well as for your own, and I will assist you all I can. I hope you will reject any articles or parts thereof (not changing the meaning) that I may offer for publication. He who cannot bear criticism is a bigot. Before closing, I wish to say a word about

PATENTS.

We will not stop to discuss the wisdom of this system of granting exclusive rights to inventors as a stimulus to progression. A majority of the people of the United States have decided to do it. They have instructed their officers, or representative servants, to hold out this inducement and charge for it. The patentee invents, accepts the bargain, pays over his money and gets his right. Now, I believe that the man who knowingly uses his inventions, without paying for the same, is guilty of theft, and he who openly advises all to take no notice of any one's rights, is not only a thief on a large scale, but guilty of treason. These are strong terms, but they exactly express my opinion upon the subject.

I have always enjoyed the pleasure of thinking my own thoughts, and the real rhapsody of expressing them, and I always expect to, as "the world moves" in the right direction.

When Mr. Otis called upon me with the Langstroth hive, and explained its advantages, he blessed me hundreds of dollars' worth. A patent was the cause of his coming, and he charged \$10. I learn that the Bingham patent on smokers has scared the "smoker I prefer" out of the market. If so, it is a fine illustration of a patent coming to the rescue of bee-keepers.

Let us act like citizens of a republic, living under the best and most liberal government in the world. If we have a law that we consider wrong, let us put all our efforts at repealing said law. While it remains in force, and all decent men are respecting it, let us be law-abiding citizens too.

I own no patent, nor interest in any, but I am not a *revolutionist* upon this question.

Dowagiac, Mich., Jan. 10, 1879.

For the American Bee Journal.

Marketing Honey.

BY DR. C. C. MILLER.

Having over 5,000 pounds of honey of this year's crop to dispose of, I was obliged to find some other than a home market for it, and the prospect of still larger crops made me interested in everything that pertains to the matter of marketing. I therefore, in the month of November, made a careful tour of all the commission houses in Chicago to which honey is shipped by the raisers, and learned what I could. As a general rule, the commission men know very little about honey, but by looking at their consignments and asking some questions, I got some hints of value. I found scarcely any packages but what had honey leaking, and I doubt not in many cases the consignors thought they had sent them with great care and in fine condition. Some were packed in cases of rough boards of not very accurate, or rather *very inaccurate* dimensions, and this hurt the sale, although the sections were quite nice, but I suppose a difference of a quarter of a cent a pound would have made a difference of at least a cent a pound on the price of honey. The general neatness of everything about the package makes its impression on the mind of the purchaser. Nearly all the packages were too heavy. As a special example, at one place where I happened to be well ac-



quainted with the commission merchant (and I know him to be a straight man), I saw a consignment of honey all daubed and leaking, and the merchant said to me, "There is a consignment that I am satisfied was sent by a careful man. I know it partly from his letter, which is carefully written, and the weight of every little box is set down in the letter in a very careful manner. But you see what condition it is in. When honey comes to us leaking and running over the floor, we must hurry up the sale and sell for whatever we can get. If our customers write to us beforehand, we advise them not to send to us, for we would rather not handle honey, and I don't believe it ought to be mixed up with other things." The packages in question were heavy boxes, weighing perhaps 100 lbs., with handles projecting at each end like the handles of a wheelbarrow. By means of these handles the box *could* be carried with great care, without cracking a single comb, and no doubt it was delivered to the railroad in perfect order. But when it came to be taken out of the car, either to be transferred to another car or to be delivered at its final destination, the railroad hands would know nothing of the contents, and it would receive the same rough handling as boxes of other goods. Suppose it is marked "Glass; with care," it is seldom that a railroad hand stops to look at the marks on a box, and even if he should feel inclined to do so, he can see nothing of it in the back end of a dark car, and there are not two men to pick it up carefully by the handles, but one man pulls it out of its place and tumbles it over and over. Besides it is much easier to handle carefully a light package than a heavy one. Try the experiment with a box weighing 30 or 40 lbs., and one weighing 60 or 100 lbs. Pick up each, carry it a few steps and set it down again. The light one you can set down lightly, without any trouble; but no matter how careful you are, you will set down the heavy one with more or less of a thump. There remains more to be said.

Marengo, Ill., Dec. 12, 1878.

For the American Bee Journal. Sundry Items of Interest.

BY J. E. MOORE.

The past season has been a peculiar one with us in some respects, the winter being favorable, also an early spring. Our bees were in good condition, and we commenced giving rye meal the 8th of March. The bees gathered some natural pollen, the latter part of the

month but did not wholly abandon the artificial, until the 11th of April.

April 27, hives were so full of bees as to need more combs, and fruit trees were budded very full, promising a large yield, but frost and cold east winds blasted our hopes, as I never saw so little honey gathered between the 1st of May and 10th of June. We kept them moving right along however by feeding. May 20th we had a terrific storm of rain and wind, lasting about 30 minutes. The hive covers were lifted like feathers by the winds, breaking them on hives against which they fell; for a time it seemed as though our 2 years' work would take to itself wings and fly away. Mr. Seaver and myself were on the jump setting hives on the ground and putting on the covers. Although the hives inside and many of the combs were very wet, we did not lose a colony. Some that fared the worst gave a fair quantity of surplus honey, while others seemed to only hold their own through the season.

From 5th to 8th of June it was cold, then ranging from 50 to 52° at 12 m., with northeast winds and frosty nights. Four such days in succession in June, is enough to give the most enthusiastic apiarist the blues, but when I passed along in front of hives and saw bees clustered outside, although they had 12 combs and it was so cold, somehow the step would quicken and the eye snap. It moderated considerably by the 10th, and the 12th was the first good honey day on clover, which yielded a good crop. Basswood failed and there being scarcely any buckwheat, clover was our sole dependence for surplus honey. Following is the record of hive yielding most honey:

Hive No. 79. April 27, gave 3 empty combs, have sealed drone brood. May 7, removed 2 combs of brood and bees, to start nuclei; gave in place 2 empty combs. June 10, gave 1 frame of foundation, and 1 comb of honey; on 13th removed 6 combs of brood and bees to make colony, gave in place 2 frames of foundation, also 1 case of side boxes; 17th gave another side and 1 top case of boxes (side cases hold 12 and top case 15 sections 5x6). July 5, removed 39 boxes of honey—gave 39 boxes. Aug. 10, removed 37 boxes of honey, gave 25 boxes. Sept. 3, removed 27 boxes of honey. Total 103 boxes honey weighing 208 lbs. We commenced season with 62 colonies, increased to 114. Surplus box honey 4,300 lbs.; extracted, 400. lbs.

NATIONAL CONVENTION.

I was very much interested in the papers read at the convention, partic-

ularly the one by Prof. Hasbrouck, on "Fertilization in Confinement." Although as yet I can but express my doubts that it will be of any practical utility to queen-breeders, still it shows advancement toward the desired end.

In JOURNAL of November I notice W. Emerick's statement that a wingless queen commenced laying, after placing drones in the hive from another colony. I have had such queens commence laying without being to that trouble, although I never had any workers hatch from eggs laid by such queens. Query: Has Mr. Emerick?

STANDARD ITALIAN QUEENS.

There has been a good deal written on this subject during the past year, and now are we any nearer together in our conclusions as to what constitutes the "standard of excellence" in Italian queens? If I should order a queen each from a dozen different breeders, requesting them to send what they considered the "standard of excellence," what a variety there would be as to color, markings and size. Now, although there might be no two of the twelve exactly alike, still they might all be pure queens. Upon testing them, however, it is highly probable I should find a marked difference in the color of their worker progeny. Some would throw a very light color, others fair color, while some would be dark. As the profit of the worker bee is in the honey they gather, the one that gathers the most (be they light or dark-colored) is the bee for the producer of honey. Formerly I was altogether in favor of light-colored workers. W. S. Barclay, of Beaver, Pa., was, I believe, the first person who spoke to me advocating a dark worker. I did not give the matter much thought, however, until I read Ch. Dadant's observations of Italian bees in Italy. Some time after this I ordered an imported queen for dark-colored workers, and soon lost a good deal of my partiality for light-colored workers. Still I bred both long enough to satisfy myself which was the most profitable bee for me as a honey producer. My experience would lead me to choose the dark-colored worker every time. I saw a queen and workers at W. S. Barclay's apiary, bred from the first Parsons importation. I have had several from Mr. Langstroth, also from Mahin, Quinby, Tupper and Dadant. If I remember correctly, the Parsons bee was not as light as the Langstroth, or dark as the Dadant bee.

ADULTERATION OF SWEETS.

I was present at the Convention of

the North American Bee-Keepers' Society, held in Pittsburgh, Pa., November, 1874. H. A. King, of New York, had a sample of glucose on exhibition, and read a paper upon the adulteration of honey (see vol. 10, page 278, AMERICAN BEE JOURNAL), warning bee-keepers of its deleterious effect in the sale of extracted honey.

I give the following extracts from New York papers to show the magnitude this nefarious business of adulteration is assuming:

"It is stated that a refinery at Greenpoint is largely engaged in the manufacture of glucose, which enters into both refined sugars and syrups. It is claimed that syrups frequently contain as much as 20 per cent. of glucose, which may be detected by a metallic taste in the mouth. Strained honey, it is said, is also heavily adulterated with glucose, and special agents reported that a large exportation by a New York firm has been condemned in England on account of adulteration. Grape sugar or glucose is the chief ingredient used in the process of adulteration. In this jar is a sample of C sugar, made and sold in the market, which contains, by exact analysis, 13 per cent. of glucose. The analyses are continued daily, and no sample of refined sugars yet assayed has been found to be unadulterated.

"The persons conducting the investigations have received the hearty co-operation of the Board of Health.

"In regard to the returning of sugars to refiners, I know that in several instances within the past two weeks, lots of over 250 barrels each have been returned to refiners in this city, solely upon the ground of adulteration, and that complaints of a similar character are a matter of frequent, if not daily occurrence."—*N. Y. Tribune.*

In a subsequent issue of same paper there is a report of an interview between a sugar refiner and reporter, from which I give a short extract:

"*Reporter.*—Do you know anything in regard to the use of glucose or acids by other refiners?

"*Refiner.*—Corn glucose is manufactured as an article of commerce, and is entirely harmless and wholesome, and we think that a business which openly produces a syrup made by combining corn glucose with syrup of refineries is entirely legitimate."

Why the refiner considers it entirely harmless and wholesome may possibly be inferred from the following extract from the *New York Observer*:

"It is said that the use of glucose and other materials nets the refiners about one-half per cent. per pound, or \$1.25 per barrel. Take a refinery that turns out 3,000 barrels per day, and the net profit per year from the adulteration alone will amount to over \$1,250,000. An investigation is now in progress by the special treasury agents, and it is reported that they have made important discoveries, and secured the most convincing



proof of the adulterations. They will complete their report in a short time, when it will be forwarded to Secretary Sherman."

Now, Mr. Editor, I don't think that one out of a hundred of the consumers of honey, sugar, syrups or candies, knows anything about glucose, or that there is such an article manufactured. I had one of the petitions for signers, and the first question invariably was, "What is glucose?"

Well, I trust the ball will be kept rolling until Congress shall pass such laws as will make all adulteraters of sweets amenable to the same.

I neglected to state in proper place, that I can fully endorse H. H. Flick's method of wintering bees. I have practiced same since 1870. (See vol. 8, page 178, also vol. 9, page 36, AMERICAN BEE JOURNAL.)

Byron, N. Y., Dec. 11, 1878.

For the American Bee Journal.

Business & Pleasure.

BY T. F. BINGHAM.

At Columbus I met with the Central Ohio Bee-Keepers' Association, composed of the principal bee-keepers of three counties, who meet once every month and compare ideas.

Their President, J. O. B. Renick, an active bee-keeper, living in the city, conducted the meeting with great credit to himself, and to the advantage of all present.

Mr. Reigel, the Secretary, read a lengthy and able report of the previous meeting, and an address showing the money side of bee-keeping. He regarded movable-comb hives, honey extractors, comb foundation, Bingham & Hetherington honey knives, and Bingham smokers, as modern, material and permanent inventions, marking the growth and development of a great enterprise. With these implements and such books and periodicals as are now so easily obtained, and the many zealous workers detailing their experiments and methods among an intelligent people, no careful observer could fail to realize that the honey interest was destined at no distant day to rank among the larger enterprises peculiar to a sugar-loving civilization.

From Columbus I went to Medina, the home of Novice, whose surname is Root. The place has a thrifty look, having, like Chicago, been rebuilt since the great fire which occurred a few years before the Chicago fire, and destroyed the town. Mr. Root is one of the active business men of the place, and takes an active interest in many of the benev-

olent enterprises pertaining to temperance and religion. He is small of stature, and restless in his ways; he speaks promptly, and apparently without previous study. This feature is the peculiarity which has given *Gleanings* its peculiar influence. His "house apiary" and grape vines evince his method and system, while his new factory leads one to the belief that the honey interest is still in its infancy.

From Medina I went to Eastern New York. Saw L. C. Root, who is an enthusiastic talker, and conversant with the private history of his wife's father, the lamented M. Quinby, of whom he detailed many interesting incidents.

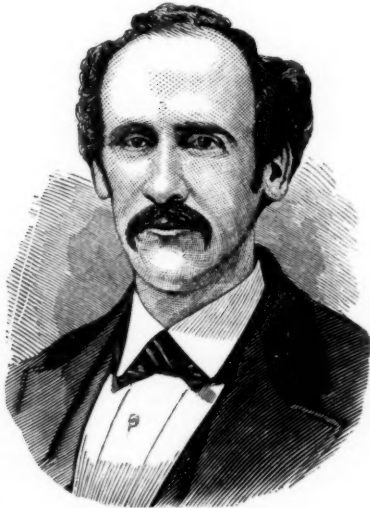
Mrs. M. Quinby constitutes a part of the family of Mr. Root. She is an elderly lady, in the enjoyment of fine activity and health, and is social and winning in her ways.

From Mr. Root's I went to Canajoharie, and saw J. H. Nellis and the paternal Nellises. The house and house-apiary stands upon a hill (no very uncommon feature in that part of New York) overlooking the Mohawk river, along whose banks run the New York and Erie Canal, and the great, restless, four-track New York Central Railroad. The view is one of great beauty and grandeur. The river, in its deep, precipitous banks, winds among the hills and is lost to view in a tiny ravine ten miles away. J. H. Nellis, in one particular, resembles Novice. He, too, has built a new brick factory, where bee-keepers' material is to be made, and where the new bee paper is to be printed. He, too, has a large steam engine to furnish power. He is a medium-sized young man, full of energy and health.

I next visited Sprout Brook and the Van Deusens. C. C. Van Deusen, the inventor of the Atmospheric Feeder and flat-bottom comb foundation, is a young man, with vigorous and interesting parents. The paternal Van Deusen is an ingenious and experienced watchmaker. The new foundation will be under his control, and it is not too much to say that it is in the best of hands, with water and steam power to aid in its manufacture. C. C. Van Deusen holds a valid patent on all the "tea-kettle" and other atmospheric feeders in use. I mention this that bee-keepers may know who should have the credit and the reward of this valuable invention. Now that he has produced the only absolutely perfect method of making foundation, rivaling in thinness and beauty the wonderful bees themselves, it will be readily seen that invention plays an important part in

our favorite industry, and should be rewarded and encouraged as a material blessing, and a benefit to every honest and thrifty bee-keeper. After a day under the hospitable roof of the Van Deusens, C. C. took your correspondent to Cherry Valley, in the Van Deusen family carriage.

Here I met, for the first time, the most extensive bee-keeper in the United States, Capt. J. E. Hetherington. He is a tall, sunny-haired young man, with prominent and overhanging forehead, and pleasant and cordial address. He is a ready talker, and, like his brothers, impresses you with the sense of candor



CAPT. J. E. HETHERINGTON.

and frankness so essential to companionship. The day was stormy and cold, and your correspondent declined with regret an invitation to be shown about the premises. We talked over foundation of the new type, with and without the wire, and no fact can be better established than the success of the wire in the brood chamber. Not a card stretches, and not a larva is removed on account of the wire.

I saw many samples of comb built up from comb foundation, and can testify to the fact that all of the combs I saw, which were built on thin, flat, septum foundation, had just such shaped bottoms as the bees make in natural combs. The pressing in of the honey into the cells, or the raising of the cells on the opposite side, invariably produce the original and time-honored base.

The smoker question was freely talked over, and I had the pleasure of seeing

the 8 Bingham smokers which had controlled 2,000 colonies of bees in the rapid work necessary in the management of so many. They bore the marks of hard use. Mr. H. said they were a necessity; they could not do without them and do the work daily required.

The new knife was also freely discussed. He said it was a great wonder and a grand improvement. His men all spoke of it in the highest praise, and would use no other when they could get one of them to use. He said we should have a large trade in knives and smokers as their excellence became known, and gave me an order for more of the large size smokers and new honey knives.

Seeing the near approach of the "wee sma' hours" and the rapid fall of snow, we left the pleasant village among the hills and its short but prized associations. C. C. and your correspondent returned to the Van Deusen mansion. I was shown the machine in which is made the thinnest and most beautiful foundation ever produced (ten square feet weighing only one pound); the bottoms of the cells are like tissue paper, while the walls are high and thin, apparently just aching to be drawn out.

The following day the elder Van Deusen kindly took me to the railroad, and I started for home after a delightful visit in which no incident or accident conspired to lessen the pleasure I found in visiting those I had long desired to see.

Did it ever occur to you, Mr. Editor, that altitude had anything to do with the production of honey? Certain it is, that the high portions of New York, California and the North-western States, all of which have a high altitude, produce the greatest amount and finest quality of honey found in our markets.

Abronia, Mich., January, 1879.

For the American Bee Journal.

Glucose, or Grape Sugar.

BY BUSY BEE.

There seems to be more said upon the subject of glucose, or grape sugar, at present, than upon any other article. Novice says, "It is even better than honey for feeding bees," and that it makes good cake, and he might as well have added that it would take the place of cane sugar, while Mr. Dadant says it is all vile trash, but he does not seem to possess Novice's virtue of "feeling friendly, even if he can't agree."

Now comes the question, Who shall we believe? That grape sugar must



necessarily contain sulphuric acid, etc., I do not believe! And what is more, I believe it will answer for feeding bees, and if it is a first-class article, it will not injure them. I also believe that it is extensively used to feed something besides bees, and that in "military districts" it undoubtedly makes very fine honey. It could undoubtedly be profitably fed to bees, for "stimulating only," if it were not for one great reason.

Let me ask if all our bee-keepers are conscientious men? Do you suppose that you can offer bee-keepers glucose at 2 and 3 cents a pound, assure them that linden honey is improved by its addition, and then expect that all will resist the temptation of adulterating their crop of honey? If glucose is used extensively for feeding bees, the market will be ruined, and the honey too. Keep on recommending grape sugar for "stimulating," and you will soon be surprised to see how many will acknowledge themselves "crazy," and you will be surprised to hear so many of our consumers pronounce their honey "crazy," too, whether labeled so or not. The "insane list" would undoubtedly find the members of "that august body" an uncongenial lot of fellows.

I suppose the writer of "The Coming War" uses oleomargarine in preference to butter, and also glucose honey in preference to the genuine article; it would not be at all surprising, for there is no accounting for what the people of "military districts" will do.

"Now, what are you going to do about it?" Congress should be petitioned and informed as to how extensively it (glucose) is used in adulteration. They should pass laws to the effect of punishing severely all persons found guilty of such adulteration, and a duty should be placed upon glucose or grape sugar, placing it at such prices as to make it less eagerly sought for.

Would not this make it more difficult for that "house" to get so much of that "white honey" of indifferent flavor? And would it not, to a great extent, stop the production of that "granulated honey" made by those "sinners of the wilderness?"

Eastern New York, Jan. 6, 1879.

C. S. Burt, Brecksville, O., remarks on the same subject:

I am very glad indeed to notice the position you have taken in regard to the use of glucose for feeding bees. It is bad enough to use the best of sugars when compelled to feed, but the use of glucose for surplus is a fraud not only on the bees but upon dealers, consumers and honest producers as well; and the worst wish we

have for those that do use it, is, that they be compelled to eat their own vile trash! If such goods have any merit whatever, let them be put on the market for just what they are, and sold on their own merits. It may not be quite the "pure juice of grape" but how would it sound to say, "Grape Sugar Syrup, or Liquid Extract of Glucose, from the Apiary of so and so—warranted not to granulate?" I would merely suggest, it is about time they were looking up a title for their goods. It may be that the "last feather" is necessary to "break the camel's back," but it certainly looks as though both producers and consumers of honey in this country at least had been loaded with this kind of dead weight about long enough. That some legislation is necessary seems evident and if our National Convention can do anything to bring this about or in any way to remedy the existing evils, they will deserve the gratitude of all honest dealers, producers and consumers of honey.

For the American Bee Journal.

Cleome as a Honey Plant.

BY W. L. PORTER.

I have been very much interested in reading the different articles on honey plants. It is a subject that every honey producer is interested in. I believe that every bee-keeper should look well to the growing of plants that will make a successive forage for his bees, from early spring to the late frosts in autumn. To determine the most valuable plants for this, and also whether it will pay to grow plants exclusively for their honey, is a subject which gives ample room for most valuable observation and experiments.

I would like to say a word in regard to cleome or the Rocky Mountain bee-plant.

I see it very often recommended and classed among the valuable honey plants, but as far as my experience goes, I have not proved it to be of any value. I have grown it for a number of years, and find it to give continuous bloom from June until killed by the frosts, and while it is usually swarming with wasps, flies and various other insects, honey bees are rarely seen on it. This summer I have observed it, particularly in Colorado, in different localities of the Rocky Mountains, and in no case did I see a bee at work on it.

In my experience it is a honey plant rather in theory than in practice. I have regained my health, and have located at Baldwin, Wis. Hope before very long to have the place swarming with busy bees.

Baldwin, Wis., Jan. 13, 1879.

Conventions.

Read before the Michigan State Convention.

Merits of Different Varieties of Bees.

BY FRANK BENTON.

Had means been at my command I would years ago, have been in the native lands of some of the exotic races and species of bees which I shall notice in this article, and then I would not, to-day, be obliged to present to you merely the views of our apiarian cousins in the Old World, and information derived from the accounts of travelers who are not bee-culturists, and therefore give very meager reports. These accounts, however, allowing a margin for their inaccuracies, still lead us to believe that in many parts of the East there are varieties and species of bees distinct from our own, and at the same time, more valuable than any bees we have yet cultivated.

THE GERMAN OR COMMON BEE.

This is our common black bee, with which all are familiar. In the early settlement of this country it was introduced from Europe. I merely mention this bee because it is with this and

THE ITALIAN RACE

that we must compare all foreign races. Of the Italians I need to say but little, for all bee-keepers up with the times recognize their superiority over our common black or brown bees. What a large part of the progress apiculture has made in the last 18 years is due to their introduction! Who can say but that equally great results will come from the introduction of some of the races more lately noticed? Relying upon the correctness, in the main, of the testimony I have been able to obtain concerning some Eastern races and species of bees, I firmly believe similar results would follow their introduction.

THE EGYPTIAN BEE.

Having experienced, on several occasions, the effect of the wrath exhibited by Egyptian bees, even when well treated, and which exceeded that shown by any hybrid Italian and black bees, I cannot recommend them in any way except that they are diligent workers and prolific breeders; yet I do not think they equal in these respects our gentle Italians.

THE HEATH BEE.

This bee, found in the heaths or heathers of Germany, does not differ greatly from the common bee, except in its great disposition to swarm. A single colony has been known to increase in one season by natural swarming to twelve. On the heaths of Northern Germany where the management of these bees is best understood, by restraining their disposition to swarm, large returns of honey are secured.

CARNIOLAN BEES.

In their inclination to swarm these bees are only second to the Heath bees. Coming

from Carniola, in the south-western part of Austria, near the Adriatic, they are distinguished for their gentleness and the ease with which they can be subdued at all times. They may be recommended especially to beginners or such as experience serious results from stings. In some provinces of Central Europe the honey harvest was very poor in 1875, and common and Italian bees failed to secure enough honey for winter, while pure and hybrid Carniolans gave quite a surplus, under the same conditions. Several eminent bee-keepers in Europe, who have bred these bees, say they excel the common bees in every respect.

HUNGARIAN BEE.

The bees among the mountains of Northern Hungary and those found in Banat, a Southern province, are probably the same; at any rate the descriptions are substantially the same. They are quite black, with somewhat longer bodies than our common bees—the abdomen rather clumsier, and are covered with light gray hair. The colonies have a greater inclination to swarm than have the common bees, the queens are more prolific, the bees are livelier in their work, and show themselves somewhat less susceptible to severe weather than the common bees, hence they have wintered well further north than Hungary. They are easily handled, and are very industrious. In 1875 they were next to the Carniolans, and ahead of the common and Italian bees, as honey gatherers in Central Europe. A bee-keeper who tried them first in 1862, said, in 1875: "This bee is more industrious and persevering in collecting honey than our native bees, and deserves the preference." His reason for only keeping them a few years was that he obtained still better races.

THE BEES OF DALMATIA.

This bee which comes from the Eastern shore of the Adriatic, has a slim, very wasp-like body, which is a shining, deep black in color, and whose rings are about half covered with lightish yellow hairs. It is really a beautiful bee. When the bees are old and have worn off the hairy covering of their bodies in their diligent labors, their bodies present a shining, blue-black, steel-like color, and as they alight they resemble black wasps. Evenings, after completing their work for the day, these bees play at the entrances of their hives like flies, chasing each other about in sport. They are, when undisturbed, far gentler than our common bees, but if thoroughly aroused they are more revengeful. By the use of smoke they are easily kept under control, however, and Count Kolowrat says that he receives fewer stings from them than from his common bees, yet he opens the hives of Dalmatians at the most dangerous times. It has been remarked that the honey of the Dalmatians is very white and peculiarly aromatic. After cultivating this bee and closely observing it for years, a very intelligent European apiarist says that he unhesitatingly places it ahead of the Italians as a much more valuable race.

HERZEGOVINA,

a province of Turkey bordering on the Adriatic, and separated from Dalmatia by a



high, broad range of mountains, has a sort of bees quite different and even superior to the Dalmatian bees; at least we have good testimony to that effect. This bee does not have the slim, wasp-like body of the Dalmatian, nor is it as black; it has, however, one other mark which distinguishes it from the Dalmatians; the first ring of the abdomen, when examined closely, is found to be yellowish and semi-transparent. These bees are, when properly managed, very mild in their behavior, are more industrious, the gathering qualities being decidedly better, and the queens are more prolific than their neighbors—the Dalmatian bees. Both the Dalmatian and Herzegovinian bees, having been developed in mountainous regions, are of strong flight, and go farther after honey than our own bees.

SMYRNIANS,

are another variety of bees which several apiarists in Europe, having tried, praise very highly. The editor of a European journal of apiculture having been presented a colony of Smyrnian bees in 1873, said in 1875, when comparing them with his other bees: "This colony works like a giant." These bees come from the region about Smyrna in Western Asia. Those colonies brought to Europe contained some bees that were entirely black and others having orange-yellow or redish bands, their bodies pointed, wasp-like, but strong. The queens have three orange-yellow bands, and are not as black on other portions of the body as the workers. In latitude 50° N., on a line with Newfoundland, Southern British America, and Vancouver's Island, these bees have distinguished themselves by the manner in which they have wintered, remaining free from disease when other colonies were affected. They fly earlier and later in the season, also earlier and later during chilly days, than do the common bees. They have likewise proven themselves very active, gentle, and the queens exceedingly prolific. They defend their hives from robber bees with great bravery, and quite as well when queenless as at other times. They are not inclined to start drone brood when they become queenless. The variation in color indicates that this is not a fixed race of bees. But the Smyrnians, where introduced had to make way for a still nobler race,

THE CYPRIAN BEES,

from the Mediterranean Island of Cyprus, so renowned in the poetry and history of ancient times. This race has been alluded to so often in our bee publications (see *Bee-Keepers' Magazine* for July, 1874, Sept. and Oct., 1875, Feb., Mar., Apr. and May, 1876; *AMERICAN BEE JOURNAL* for Sept. and Oct., '77, July, '78; that all one cares to ask is: "Are the good things said of them some years ago in Europe, fully substantiated by actual experience?" To this I reply emphatically, *Yes!* One colony of these bees was imported from Cyprus to Bohemia in 1866, but through mismanagement died the following winter. The same party obtained another colony from the Island in 1872, and two more in 1874. Descendants of these later importations have been obtained by many prominent

apiarists in Central Europe. At the great Strasbourg Convention in 1875, a prize of \$10. was given to Herr Hilbert for his Cyprian bees; and not long since the Bohemian Bee-keepers' Association, composed of 800 members, bestowed upon Herr Corl, as a recognition for his great services in the importation and acclimating of Cyprian bees, a diploma betokening the highest honors. Herr W. Honzejek, an intelligent teacher and bee culturist in Bohemia, after some years' experience with Cyprian bees, recently proposed a plan for their general distribution in Bohemia. He advises the Bohemian apiarian society to establish an apiary to be devoted to the rearing of Cyprian queens for members of the society, merely charging for each queen enough to fully cover expenses. Referring to the few who do not regard this race in a favorable light, he says: "These gentlemen, or others of like mental caliber, may yet, with us prizers of the Cyprian bee, say, 'Certainly this bee has a future.' Whoever does not believe this should consider the results obtained with this bee in various apiaries in our country, and then talk like a sensible, truth-loving man." Before Cyprus was annexed by Great Britain, Herr von Natzmer earnestly advised through the *Bienenzeitung* its annexation by Germany, in order that under the control of the government, the culture of the Cyprian bees in their purity might be carried on there. In almost every instance in Germany, where the Cyprian bee has been tried it is called "*eine hochedle Bienen-Rasse*," literally, "a high, noble bee-race." When, in the face of this mass of testimony, I find men of little or no experience with them, who sneeringly assert that it is all "a humbug," I am reminded of the obstinacy with which a few opposed the views concerning Italians, now entertained by nearly all the apiarists of the country.

BEES OF JAPAN.

From a report published by the Japanese minister of education the following items are gleaned: "In the province of Sinano there are two varieties—one grayish-yellow, the other having yellow spots. In the region of Hikigoie, a province of Latsuma, the bees are brown and very small. The bees of the province of Unschiu, are similar in form to those last mentioned; they are very tame, and bear the name *Kinbatsi* (gold-bee). In this province two other races are found: (the "wild honey-bee," and the "bear honey-bee"), whose wildness, it is said, make their cultivation very difficult."

NUMEROUS SPECIES

of Trigona, stingless bees inhabiting the East Indies, could be found, while investigating other bees there found. The "black bee of Africa," and the "bag-pipe bee" (*apis amalthæa*), of the West Indies; the latter said "to furnish the sweetest and best-tasting honey," are other races or species about which positive information is lacking.

THE BEES OF CAUCASUS,

or Caucasian bees, according to Professor Boutelerow, a skillful Russian apiarist,

combine the good qualities of the Northern breeds with those of the Southern varieties. An effort is being made, to learn more about them.

APIS INDICA AND APIS DORSATA.

Apis indica is found in India, Ceylon, Malacca, Java, Borneo, Banca, Celebes, Timo, Floris and Sumatra. It is smaller and weaker than our common bees, and its honey is not as good as that of *Apis dorsata*, which is said to be very fine.

Apis dorsata is a native of India, Malacca, Borneo, Timor, Floris, Java, Sumatra and Ceylon. It is most abundant on the Island of Timor. This bee is about twice the size of our common bees, and could doubtless gather honey from red clover as well as from many other plants. The only man who has said that they were not suitable for domestication, is Rykens, who was paid a round sum by the Dutch government to import Italian and Cyprian bees to Java. Even supposing they do build their combs in a horizontal instead of a perpendicular manner, cannot Yankee ingenuity adapt hives to their habits?

I would call the especial attention of all to article on *Apis dorsata*, which can be found in the AMERICAN BEE JOURNAL, for December, 1877, January, February and December, 1878. The latter is by our honored master in bee culture, L. L. Langstroth. Mr. L., says: "Will our American bee-keepers raise a fund and obtain the services of some bee-keeper, not too old, strong, wise, and of indomitable energy, to test this matter?" And again he says: "instead of so much theory and talk, let us get to practical work." Let the bee-keepers of Michigan sustain their reputation for progressiveness, by taking the initiatory step, and, if possible, the lead in the actual execution of this work!

APIS ZONATA

is a native of the Philippine and Celebes Islands. This is called a "beautiful and strong bee, quite black, except that the bases of the third and fourth segments are edged with a small white line." Chancellor Cori thought when he wrote about *Apis dorsata*, that it was exceeded in size by no other honey bee, but a later authority—one who has seen both *Apis dorsata* and *Apis zonata*, gives additional information which leads to the belief that *Apis zonata* is the largest honey bee of the World!

Detroit, Mich., Nov. 30, 1878.

Read before the Michigan State Convention.

Mustard as a Honey Plant.

BY FISK BANGS.

Bee-keeping has advanced to that degree of success, and bees have become so numerous throughout the country, that, it will soon become necessary for us, as bee-keepers, to look to something besides the pastures that nature has supplied.

The most important object to be attained in the selection of plants are those that secrete the best and most honey; those that will not only secrete honey, but also, can be

utilized in the feeding of stock; thus, making the bees produce a profit from the nectar, and the cattle by laying on the fat.

In Vol. XIII., No. 6, page 188 of the AMERICAN BEE JOURNAL, we find the following: "Perhaps one of the best honey producing plants is tall Chinese mustard. It remains in bloom a very long time, seems to yield honey continuously; is equally vigorous to resist drought, or wet, and flourishes in all soils. It may be sown any time from May 1st to the middle of June, the earlier the better. It will seed itself—its greatest drawback. Yet it is far less troublesome than the common mustard. It should be planted in drills one foot apart, for easy cultivation. An ounce will plant one rod by four."

To test its qualities and have no "perhaps" in the question, I planted two acres and a half of this "tall Chinese mustard," or what is generally known as black mustard. It was sown the first day of June, rather late in the season. The weather being dry it took longer for it to get a fair start, and when fairly under way, it was very irregular in growth. I wanted it for use by the middle of July and from that time on. But I missed my calculation and it did not come into bloom until the middle of August or just before the mass of buckwheat. It then bloomed until the setting in of cold weather. The first frosts of the season seem to have no effect upon it, and every morning it was covered with bees until noon, and then they would depart for other fields of labor. If sown about the middle of May, it will come into bloom the middle of July, and will last until buckwheat. Just the time when there is a cessation in the honey gathering and the bees are idle. As stated before, it should be sown in drills a foot or more apart for easy cultivation, for if sown broad-cast, it will be held in check by the weeds; but, when once it gets fairly under way, weeds nor anything else can check it. It would be a good plant to sow for the extermination of weeds. It should be well cultivated in its earlier stages.

The honey produced by mustard, is of a bright golden yellow; it is very mild and pleasant to the taste, not producing the strangling sensation as that of basswood, and is entirely different from that of white clover. Dr. Kedzie says "it is the best honey he ever tasted." That is the verdict of all who have tasted it. In the market, those customers who have once had some, invariably want more.

Now, granting that mustard is a grand honey producing plant, will it be safe for us to sow a plant that has such a reputation as mustard? I answer this only from my own experience and observations. At the Agricultural College, for several years "tall Chinese mustard," has been sown for bees, in large beds, in a different place from that of former years. It seeded itself every fall and the following spring it would come up very thick, but as these plots were cultivated afterwards, for other plants, the mustard disappeared. It has never been troublesome there as a weed, though some persons talked about its being such a bad weed, when first sown. Their predictions proved untrue. The plant grows from 4 to 7 feet high, and



it can be killed any time before it blossoms by mowing or plowing it under. It grows to such a height before it blooms, it would, in our opinion, be a good plant to sow the first year for the bees, and then as the plants come up the next year to plow them under for green manure. Besides the honey produced by the bees, the value derived in the shape of green manure and as a weed exterminator, there is a remuneration arising from the sale of the seed.

I only recommend it to the careful man, who will not find it a pest; but to the careless farmer or bee-keeper the simple word *beware* will suffice.

North Lansing, Mich., Nov. 30, 1878.

Read before the Michigan State Convention.

Comb Foundation.

BY J. H. NELLIS.

Comb foundation has had a short and rapid history in this country. Only three years ago the amount used in the United States was not as great as that appropriated now in certain limited districts. Judging from this, we may say foundation is a success. Like all new things, it has had its supporters and its enemies. Many tried it with a desire to succeed, but from want of knowledge of how to use it, failed in first attempts. The worst features of its early history are that manufacturers adulterated it, or with silly conception, expected to compel the bees to accept cells of unnatural size. The adulterated article sagged so as to become worthless, or was unnoticed by the bees. The queens objected to unnatural-sized cells, as though they were at a loss to know what their progeny would be, if they put eggs in them.

But these things are past; the cry is "onward and upward" in matters of invention and progress. The severe and long-continued hard times have made the price of honey so low that it cannot be classed among the luxuries, and the questions arise, "Can we produce honey in quantities?" Do methods and appliances exist that make it possible for us to produce honey at these prices, and yet support our families and lay by a competency against the time of old age?

I think that comb foundation is one of the key-stones in this arch of inquiry.

In the brood chamber it is useful in many ways. It supplies all worker comb, thus making the combs useful for breeding to the fullest extent. The combs are regular and therefore more rapidly handled and more useful, as they contain more available space for brood and honey. It saves the bees the time and material used in building natural comb, thus making in times of plentiful yield a large difference in the amount of honey obtained.

The worst complaints against its use in the brood chamber, have been its sagging. This is due to various causes: First, impure or adulterated wax; Secondly, exposure to severe heat and heavy clusters of bees; Thirdly, to the use of sheets too thin for the use of brood chambers. These evils are overcome by applying the remedies nat-

urally suggested, and we are also glad to say that comb foundation with wire incorporated has been recently introduced that effectually defies all these obstacles. After a large experience, we decide that foundation for the brood chamber should contain from five to six square feet of surface to the pound. This weight is most profitable and successful, yet our time and space will not permit us to give our reasons for this conclusion in detail.

For fastening foundation in frames, white glue, kept in liquified state over a lamp, is largely used by bee-keepers in this section. This glue sets quickly and is reliable. We have nothing that suits us better than beeswax one part, rosin two parts, melted together, for putting starters in boxes. Take a veneer a little longer than the dish and crowd it in, so that the middle is just below the surface of the mixture, touch the starter on this veneer and at once set in its place. A little practice will demonstrate that the mixture must be of proper temperature, neither too hot nor too cold.

Canajoharie, N. Y.

Read before the Michigan State Convention.

The Grape Sugar Controversy.

BY PROF. R. C. KEDZIE.

Shall we feed grape sugar to bees? is one of the most important questions that now demand an answer from the apiarist. This question has been argued in the bee papers for some time. Some regard glucose as an excellent food for bees, free from all impurities, and much cheaper than cane sugar, while others consider it as very unsafe bee food, adulterated with chalk, sulphate of iron, etc., and more costly than cane sugar.

I see that one of the bee papers makes a distinction between grape sugar and glucose, calling the first a solid and the last a liquid. But this distinction is not a scientific one. Both forms are called glucose or grape sugar in all works of any authority that treat on the subject. The sugar of both has the same composition, and is made from the same materials. The only difference is that glucose syrup contains more water than glucose sugar. If the syrup is boiled down it forms solid glucose. Still some persons claim that solid glucose is not as sweet as the liquid, and does not contain as much sugar. But if liquid glucose contains more sugar, why doesn't it crystallize out? Judging from some of my recent experiences with grape sugar, I am not surprised at these statements. But we have in the laboratory a specimen of grape sugar, which, when made into a syrup with water, is fully as sweet as the glucose syrup of commerce. Probably the only reason why grape sugar is received with any favor at all is the fact that it is supposed to be cheaper than cane sugar. But is it in reality? Let us compare these sugars on the basis of the carbon they contain. There is enough hydrogen and oxygen in in either kind. A pound of Davenport glucose contains on an average about nine and three-fifths ounces of dry glucose, of which three and four-fifths ounces is carbon. A pound of

granulated cane sugar has nearly sixteen ounces of sugar, of which six and three-fourths ounces is carbon. Therefore if grape sugar is worth four cents per pound, cane sugar is worth seven to eight cents per pound. But cane sugar costs ten cents per pound. Thus it appears there is from two to three cents a pound in favor of glucose—with sulphate of lime, free acid, a bitter, nauseous taste, and the risk of killing one's bees by feeding the stuffs—all thrown in for nothing. I have not taken into account the fact that cane sugar is two and one-half times as sweet as grape, and very much more nutritious. Truly it is short-sighted economy to feed grape sugar to bees.

In conclusion, it should be kept in mind that honey is a luxury, not a necessity. People do not buy it as meat and potatoes, to satisfy the cravings of hunger, but to gratify their love of sweets. As soon as glucose is fed to bees generally, will not people become suspicious, and rather than run the risk of being imposed upon by having honey mixed with glucose sold to them as "pure honey," purchase some other form of sweet that they think is not adulterated? Possibly I am mistaken, but in this matter I judge other people by myself.

Still further, when a prominent bee publication says: "A pure article of glucose is excellent food, and we should like it just as well as honey did it not lack the flavor of flowers," what is to prevent some persons, more ingenious than honest, from reasoning thus: "Glucose lacks flavor; well, I will add some honey or flavors to it, and sell it as honey. Who will be the wiser? and then—there's millions in it."

The argument that because honey contains grape sugar and is wholesome, therefore grape sugar of commerce is wholesome, amounts to nothing. The grape sugar elaborated in the slow and secret processes of nature, is not, necessarily, the same as that formed by the action of one of the strongest acids upon corn starch in a few hours. A free and fair discussion of this question can do no harm. If grape sugar is the excellent and healthful article its manufacturers would have us believe, its merits will become known and appreciated.

"Truth, crushed to earth, shall rise again; the eternal years of God are hers"—but grape sugar that is to "rise" must be far better than that for sale in the markets to-day.

Read before the Michigan State Convention.

Wintering Bees Successfully.

BY T. F. BINGHAM.

As the price of honey approaches the level of cane sugar, and the margin representing a net profit steadily narrows, the special bee-keeper is led to cast about him with a view to the possible future. In doing this, possible loss represents a probable factor. Memory fresh from the winters of 1871, '72 and '73, warns him of a risk not taken by the underwriters, and he contemplates with solicitude the loss of his apiary, representing his productive capital at a time when the margin under the most favorable circumstances is so small and wonders

if such risk in such unpropitious times cannot be removed.

So great has been this solicitude that no specialist, living in regions which have been decimated periodically, has failed to try some reasonable precaution.

Immediately after the great losses which seemed governed by no certain accident or modified by any special and certain course, I undertook the shipment of my apiary South to winter. The success was such as to justify a second shipment which was made the following winter. In these two shipments important data was obtained which seemed to indicate that such shipment might eventuate in practical success.

But the rapid and steady decline in the price of bees and honey, soon rendered such expensive methods absolutely impracticable. When this conclusion, data and experience were systematized, and a method adopted which I hoped might so reduce the expense and risk of wintering, as to render the production of honey remunerative, even should the price continue to decline. The plan was to double the size of the colony, and double the amount of combs and honey, and so arrange three colonies thus enlarged that their combined warmth would be the equivalent of one hive containing six colonies of bees.

The experiment was made on 120 colonies and sets of frames of honey united in pairs so as to represent 60 regularly organized colonies of bees. The experiment was a marked success. The number of bees reared early was simply immense. I visited various apiaries and enquired of every beekeeper I saw, as to the condition, and volume of his bees. I became fully convinced that my 60 colonies outnumbered in individual bees, any 100 colonies in my immediate vicinity.

It will be borne in mind that I do not presume that the method pursued would remove the causes which decimated our apiaries in previous years. The experiment is given merely to show that methods sometimes modify the activity of unknown causes.

Believing that this plan of wintering is superior to any and all others for wintering bees in this climate, I will further describe the course pursued. The first thing to be done is to construct small houses, sufficiently large to enclose three ordinary hives, side by side, so as to allow a packing space of seven or eight inches on all sides except the top, which is to have a clear packing space above the frames of at least twelve inches in height. To facilitate packing, handling and storing, the top, sides, bottom and ends, are made in separate parts. The bottom is placed as desired and the hives put on strips raised six inches on the front side and eight on the back, so as to incline the hives forward. The entrances are now provided with a conductor, which is to enable the bees to pass through the material used for packing the space between the hives and enclosure, the front and ends are set up around the hives. The corners are now secured with strips of hoop-iron, bent around each corner, and nailed with two small nails. The packing of fine hay or rowen, is now closely packed beneath the hives from the back, after which the back



of the enclosure is put in and the corners secured as before with hoop iron. The top of the enclosure is now open ready to receive all the fine rowen or chaff, which can be packed into it by the most thorough methods. This done, put on the top or cover, which should have an inclination sufficient to turn the rain; and these three colonies may be regarded as needing no further care until the honey season opens.

As this plan, of necessity changes the location of many hives, the enquiry will be made as to the means employed to keep them in their new position. After all the brood is hatched and the honey season over, the bees have assumed their winter repose; no bee leaves the hive without flying before the entrance and locating it as do queens and young bees on their first flight.

For the benefit of those who cannot easily obtain chaff, I would say that I use fine short grass cut from my apiary, from time to time during the summer, to pack with, and believe it is superior to chaff and much better to handle; besides it may be used over and over, without much loss. This is of consequence when it is known that over two tons were used in preparing my 80 colonies for the present winter.

Abronia, Mich.

Read before the Michigan State Convention.

Bee-Keeping in Southern California.

BY M. S. BAKER.

In my opinion the natural resources of Southern California for the bee business are unequalled, except perhaps the market, for which we depend in a great measure upon sending it abroad. After supplying our own state and territories at the west, we must ship by rail overland to an eastern market, or by a voyage of five months to Europe. The price in shipping is much in favor of the European market. It costs one-half cent per pound from San Francisco to Liverpool and two and one-half cents to Chicago or New York. If we put our honey into any of your eastern markets, we must first pay a tariff of two cents a pound, so that the railroad really affords the east a protective tariff of two cents. Southern California is now shipping large quantities to commission merchants in Germany on an advance of $5\frac{1}{2}$ cents per pound. Some of the reasons why Southern California is unequalled for bee business is that we get a fine quality of honey and more of it for a given amount of labor and bees. We are to no expense and suffer no losses in wintering, and our bees increase much more rapidly than at the East or in any country I have ever heard of.

We have no rains during the honey-producing season to hinder the bees from storing honey, or the apiarist from his business.

The honey-producing plants in the mountains afford a superior quality of honey, the principal of which are the white and ball sage; usually from this the honey is gathered in the month of June, and is our whitest honey. The bearberry and sumac afford a fine flavored light straw-colored honey, but is more inclined to granulate. The bees work on this through the month of July

and the first half of August. This constitutes nearly the whole of the season for storing surplus honey. There are of course a large variety of other plants and shrubs that afford honey, among them are laurel, wild buckwheat, mountain mahogany, wild alfalfa, etc. Ordinarily our bees find flowers enough that afford honey for their living through the winter.

Our honey when extracted was about $\frac{1}{2}$ sealed. We then passed it through a large sun evaporator, from which we removed a thick scum before drawing it into our reservoir, being ripe and thicker than all sealed honey. Our honey house is two stories high; we extract on our upper floor (which is nearly on a level with our apiary ground), pass the honey from the extractor through the strainers into the evaporator, from that to our tank in the lower story. For our uncapping we used hot knives, but are now assured that the Bingham and Hetherington patent knife does the work very nicely cold. If this be so, then Bingham has again laid the bee men under lasting obligations to him, for the Bingham smoker is of great value to the business.

We made no artificial swarms until after taking surplus honey, and prevented our bees from swarming all we could, by removing the queen cells, and when a swarm came out, leaving the parent hive weak, we returned them and took away all the queen cells, and still our bees nearly doubled from natural swarming.

We successfully made and used comb foundation, the result of which on the whole has been very satisfactory.

After we had done extracting we divided 75 colonies without reference to where we left the queen, taking half the brood and the bees and put them into a new box, placing the surplus box with what bees were in it on top; most of these were natural swarms.

If one half the effort was put forth here that is in Michigan, the results would be four-fold. A bee man in this county from one swarm this season extracted 1000 pounds of good honey, and made 14 colonies from the original one. The box was 12x18 inside, a common double Langstroth hive. The 1,000 pounds was all taken from the parent hive.

Some of your bee-men recommend extracting honey before it is sealed. In my opinion the farmer might just as well cut his grain before it is ripe, unless measures are taken to ripen it as soon as extracted. Honey equally as good as ours, extracted from unsealed combs and put into cans, often ferments and bursts the cans, while ours that went through the sun-evaporator is neither fermented nor granulated. San Francisco dealers are now complaining of unripe honey put into market. It costs but little more in any branch of business to produce a good article than a poor or inferior one. Southern California bee district is composed of four counties, Ventura, San Bernardino, Los Angeles, and San Diego.

The sun never shone on a more delightful climate than is afforded here. Not an excessive warm day did we experience at our apiary last season. We can make our calculations a week or month in advance, knowing no storms will interfere.

Santa Monica, Cal., Nov. 5, 1878.

Carson City, Mich., Convention.

The bee-keepers in Montcalm county and vicinity met on December 3, 1878, at Carson City, Mich. Present Thomas G. Newman, editor of the *AMERICAN BEE JOURNAL* of Chicago. Prof. A. J. Cook, of the Michigan State Agricultural College; O. J. Hetherington, of East Saginaw; and fifty or more bee-keepers—for the purpose of forming a Bee-Keepers' Association. Mr. H. M. Roop was called to the chair. By request of Mr. Roop, Mr. T. G. Newman acted as temporary Chairman.

The following were elected as temporary officers: Hiram M. Roop, President; Vice Presidents, John McWhorter, O. H. Townsend, Harvey Beach, David Eschilman and William Brown; Secretary, O. R. Goodno; Treasurer, Charles Cross.

The following were appointed a committee to draft a Constitution and By-Laws: O. R. Goodno, G. M. Barney and John J. McWhorter. After deliberation the Committee reported a Constitution and By-Laws, which were adopted. The temporary officers were unanimously elected to serve the Association for the coming year.

The Convention adjourned until 1:30 p.m.

AFTERNOON SESSION.

At 1:30 p.m. the Convention was called to order by Vice President McWhorter, (the President being absent.) Mr. T. G. Newman, in a speech, enumerated the advantages of such Associations. In the absence of a stenographer we are unable to reap the full benefit of many valuable suggestions.

O. R. Goodno was then called upon for a few remarks in regard to wind breaks, as a protection to an apiary. With one season's experience he looks upon it as being an equal protection to the bees, as the approach and entrance is to a good harbor for a vessel. He had saved the lives of many bees in bleak cold days in April and May, and equally so in fall weather.

President Roop then assumed the chair and remarks of interest were listened to from O. J. Hetherington and President Roop. We then had a lengthy though very interesting speech from Thomas G. Newman, followed by remarks from President Roop, E. J. Hetherington and James Robertson.

Wm. Brown gave us an account of his success in wintering in an out-door building, prepared expressly for wintering, built upon President Roop's plan.

David Eschilman remarked that he liked black bees, but never had any experience with Italians.

Prof. A. J. Cook then read a very valuable paper upon "Dollar Queens."

President Roop endorsed Prof. Cook's paper, disapproving of the practice of rearing and selling dollar queens. Pres. Roop is an old queen breeder who has had many year's experience.

Adjourned to 7 p.m.

EVENING SESSION.

President in the chair. C. F. Wheeler gave some very valuable remarks in regard to honey-producing plants and the relation

of insects to plants; classifying and enumerating each.

Prof. Cook read an analysis from Prof. Kedzie, upon glucose.

Dennis Gardner then gave a detailed account of his success during the past season.

Pres. Roop gave an approximate estimate of his season's operation. He had in the spring of 1878, 130 colonies, and he has realized from the same in sale of bees and honey, \$2,300, and now has in winter quarters 215 colonies in good condition.

Thomas G. Newman addressed the Convention upon the adulteration of syrups and sugars at length. Upon the motion of Prof. Cook, the following resolution was passed unanimously:

Resolved, That this Association protest against the use of Glucose for feeding bees.

Adjourned till Wednesday, at 10 a.m.

MORNING SESSION.

The President explained how the nectar was changed by the bees to honey.

Vice President McWhorter explained the condition of honey, as gathered.

D. Eschilman doubted that bees gathered any thing but honey and stated that it was not necessary to evaporate.

Pres. Roop replied, stating that unripe honey extracted, and sold, was damaging to the market, and explained the process of evaporation, and the cause of sour honey.

A general discussion ensued upon clipping queens' wings, Messrs. Cross, McWhorter, Mitchell, Goodno, Eschilman and Gardner taking part in it.

Pres. Roop described his manner of clipping. Uses round instead of sharp pointed scissors. Performs the operation on the comb by getting the queen to travel up the comb. Has the frame resting on top of hive, and by slipping the scissors up under and always clipping the left wing. He was less liable to injure or frighten the queen in this manner, than by catching her.

D. Gardner gave his plan of hiving new swarms.

A general discussion ensued, upon shading hive.

O. R. Goodno endorsed Prof. Cook's plan of having evergreens, but thought it expensive, especially where the soil is not adapted to evergreens, as well as the price to be paid for them. He favored the portico which he uses as a partial shade, but does not consider it sufficient, and used loose boards to some extent in addition. He now proposes to set out peach, or some other rapid growing low top trees, for shade.

D. Gardner objects to much shade, owing to the inconvenience of seeing swarms issue.

Pres. Roop described his plan of shade; not believing in grape vines, and trees being so uncertain of life, he favors a shade made by posts extending 7 feet above the ground and nailing a piece across the top long enough to receive 2 boards 12 inches wide, then setting hives 18 inches back of the posts: rows of hives to run East and West. This height, allows the apiarist to pass under the boards, and at the season of year that they most need shade, by setting them



back 18 inches from the posts, it will bring the shade where it is most needed.

The subject of "Italian vs. Black Bees" was discussed at length. President Roop enumerated the superiority of the Italians over the blacks as honey gatherers, convenience in handling, and illustrated his method with a hive and comb.

Adjourned until 1:30 p.m.

AFTERNOON SESSION.

The President in the chair.

It was resolved that questions for discussion should be submitted to the Secretary in writing.

The first question, "What advantage has artificial swarming over natural swarming?" This question was discussed very freely, without arriving at any decision.

Wm. Daniels described his method of transferring.

D. Gardner, Wm. Daniels and President Roop gave their methods of returning swarms.

Mr. Daniels explained his winter hive which was on exhibition.

The Secretary was appointed a committee to examine articles on exhibition, and mention those most worthy in his minutes.

O. H. Townsend was made an honorary member.

The next place of meeting was left with the officers. Adjourned to the third Tuesday of Dec., 1879. *HIRAM ROOP, Pres.*

O. R. GOODNO, Sec.

[The enumeration of articles on exhibition is omitted for want of room.—ED.]

Muscatine, Iowa, Dist. Convention.

Pursuant to call, a number of the bee-keepers of Muscatine and vicinity met at the court-house in Muscatine, Iowa.

The meeting was called to order at 10:30 a. m.; W. J. Ronald, of Grand View, was elected Chairman, and W. T. Kirk, Secretary.

The object of the meeting was stated by Messrs. Lord, Allen and Van Camp, to be to form an association of bee-keepers embracing at least the counties of Scott, Cedar, Johnson, Louisa, Muscatine, in Iowa, and Rock Island and Mercer, in Illinois, or parts of the same.

On motion of A. N. Van Camp, the Association was named the Muscatine District Bee-Keepers' Association.

On motion, the chair appointed A. N. Van Camp, George Parks and Lewis Coe, committee on permanent organization, and constitution and by-laws for the Association. Then followed enrollment of members, as seen annexed to the constitution. On motion, adjourned until 1 p. m.

On re-convening, the constitution and by-laws, as reported by the committee, were adopted. On motion, proceeded to election of officers for the succeeding year, by ballot, with the following result: Maj. Lyman Allen, President; W. T. Kirk, Vice President; A. N. Van Camp, Secretary; Richard Lord, Treasurer.

On motion, it was decided to hold the next meeting at Muscatine, and time of meeting fixed for Thursday and Friday, May 8-9, 1879.

After a few brief remarks on subjects of interest to members present, the Association adjourned. *A. N. VAN CAMP, Sec'y.*

P. S.—I would add that all bee-keepers residing in the above territory, are requested to join the Association, and can do so by sending their names and 50 cents to L. Allen, President, or to the Secretary, at Wilton, Iowa, or the Treasurer, at Muscatine. Ladies free. Readers of the *AMERICAN BEE JOURNAL*, in the District, are requested to talk the subject up with neighboring bee-keepers, and let our first regular meeting be a big success. Come!

A. N. VAN CAMP, Sec'y, Wilton, Iowa.

Our Letter Box.

Rochester, N. Y., Jan. 12, 1879.

I send the following recipe for a severe cold: Take 1 ounce of hops and 4 ounces of rock candy. Boil in 1 quart of water till 1 pint is left, then strain, and add 8 ounces of comb honey. Take 3 to 4 tablespoonfuls a day. *M. J. WAGNER.*

Brandywine Summit, Pa., Jan. 9, 1879.

Last month some one stole 3 colonies of my bees, taking 1 each night. I hope some electric machine may be made and sold that will protect our bees. My bees are enduring the cold weather well, and are all wintering good. *J. T. WILLIAMSON.*

Light Street, Pa., Jan. 8, 1879.

I have several volumes of the *BEE JOURNAL* when published by Mr. Wagner, and find that it still holds its place as the best bee periodical published. It advocates the best interest of its patrons, and as long as it does this it shall have all my influence. My bees went into winter quarters with plenty of stores, but had mostly old bees—the late honey resources being cut short by the drouth. Do not let up on glucose, until a law is enacted with severe penalties for its use in adulteration of honey and syrups. Success to the *BEE JOURNAL*.

H. H. BROWN.

Bellevue, Ill., Jan. 7, 1879.

On page 18, January number, Mr. Dadant, says: "There can be no fear of being prosecuted for selling pure liquid honey, for the lack of granulation is not a proof of adulteration; yet if, in December, I was offered a lot of liquid honey I would be very suspicious about its purity, because I know unquestionably that all honey gathered in Illinois will granulate in the fall."

Now I think Mr. Dadant is mistaken, for all honey does not granulate in the fall that is gathered in Illinois! I have some liquid honey that was gathered in Illinois; it was taken out of the hive in the past fall, and has not granulated up to this date. Also have some liquid honey that was taken out in the fall of 1877; it still remains liquid, and does not show any signs of

granulating! For fear some may think I have an "axe to grind" I will say I do nothing to keep my honey from granulating; I fed my bees nothing, and what honey I have, the bees gathered without my assistance. Some of my honey granulates but some does not. Can some one give a reason? W. E. MCBRIDE.

[Mr. John F. Lafferty, of Martinsville, Ill., also states that not a particle of his crop of this year has granulated, nor does it show signs of it, although kept in the honey house and is as nice a crop as ever he had. He adds: "Usually it granulates, but not always by any means." It is evidently true, therefore, that pure honey does not *always* granulate—though it does usually.—Ed.]

Waveland, Ind., Dec. 25, 1878.

The last season was a good one, here, for bee-keepers. Although up to May 20, it was very poor. Apple bloom did well and gave the bees a fine start in brood rearing. When that was over we had a spell of cold, wet weather, lasting to about May 20. I had to feed to prevent starving. ISAAC SHARP.

Winterset, Iowa, Jan. 3, 1879.

The honey season was poor, with but little section in the bloom, until August and September. We extracted about 1,000 lbs. from 27 colonies and their increase. Our bees were short of stores in the spring, and being short of means, they suffered and I lost probably 1,000 lbs. from not feeding. Have 47 colonies with plenty of stores. "Honey, as Food and Medicine" came to hand; I shall send for a lot of them soon. It and Cook's Manual are very valuable. MOSES BAILEY.

Harrisonville, Mo., Dec. 31, 1878.

On December 12, it began snowing, and continued, without intermission for 24 hours. It settled to the depth of 18 inches and still remains on the ground. This is the deepest snow ever seen here. My 90 colonies of bees are all on their summer stands and snowed under, but the snow is settled, so that I can now see all the hives. I have not disturbed any of them for I think the bees all right. All I did to prepare them for winter was to remove the upper stories, or supers, and contract the entrances. I use Langstroth hives. All bees in this region are wintered on their summer stands. I received your copy of "Cook's Manual" and find it terse and practical. LEE EMERICK.

Hadley, Ill., Jan. 6, 1879.

The year of 1878 is gone, and it was not the most successful one for our bees that I have seen. I got about two tons of extracted, and half ton of comb honey. It is nearly all sold; my home market will consume it all. I have at present 138 colonies, part in cellar and the rest in a house built for the purpose. I have not lost 10 colonies in wintering during the last 6 years. Some one asked in a late number of the BEE JOURNAL if Italian bees worked on

red clover? With me they did through the month of June, and until the first crop of clover was cut. On all fine days I found 5 bees on the red clover to 1 on the white. This I have observed for the past 10 years, or ever since I introduced Italian bees, and I consider them nearly moth proof. I have not wintered less than 100 colonies for the past 15 years. I have not sold any for 2 or 3 years, until this fall. I like natural swarming the best. I do not let any swarm but once. From 100 to 125 colonies being all I care to handle. I keep them down to that number. The hives, combs and honey are worth more than the bees would sell for, though there is nothing I so dislike as killing my pets. FRANK SEARLES.

Noblesville, Ind., Jan. 4, 1879.

I commence the New Year with many new and good ideas. I expect to make the coming season one of pleasure and profit, for surely both are found in practical bee-keeping. I wish, by no means to insinuate that I am a practical bee-keeper, as my short experience would not insure the assertion, but I will say that by persistent labor, assisted by the AMERICAN BEE JOURNAL, I expect to acquire a considerable knowledge of that industrious little insect. My success last year was very encouraging, and much I owe to comb foundation, for by its use I was able to increase my colonies, and receive more honey that I could have possibly done otherwise.

I would like to hear an expression from the friends and the editor of the A. B. J., in regard to the practicability of wired-flat-bottomed comb foundation. Also, how would you establish a honey market, in a town of 2,500 inhabitants?

I winter my bees in a bee-room not a cellar, like it much better than out-door wintering.

Hope to see a great many bee-keepers at the National Convention next October.

L. M. WAINWRIGHT.

[Both questions are answered in this number of the JOURNAL.—Ed.]

East Fairfield, O., Dec. 27, 1878.

Our bees came through the winter without loss, and were strong enough to give several swarms before fruit bloom ceased. The cold rainy season followed paving the way for an abundant white clover harvest. We averaged from 40 to 50 lbs. of comb honey to a hive, besides a handsome increase. JOB HUESTIS.

Brecksville, O., Dec. 27, 1878.

Bees are in winter quarters, in apparently good order. But the weather during the past week has been very cold and "trying" to those outside—high winds and mercury at zero. THE AMERICAN BEE JOURNAL is the leading periodical of its class in this country, if not in the world! and we recognize it as the standard authority in apicultural matters among bee-keepers generally. I trust that no efforts will be spared to maintain the high position it already occupies in the estimation of *producers* as well as consumers. Accept a host of good wishes for its success. CHAS. S. BURT.



Chillicothe, Mo., Jan. 18, 1879.

I've got more than value received, for all I have expended on the JOURNAL.

G. W. PIPER.

Waterloo, Ky., Jan. 3, 1879.

The weather has been very cold here; 18 degrees below zero last night. Many bees in this section will be destroyed, I think. Those in box hives are dying out rapidly.

R. L. AYLER.

Maryville, Tenn., Jan. 14, 1879.

The entire season has been unfavorable. Out of 125 colonies we have had but 3,000 lbs. of extracted honey, leaving the colonies in good condition. We have lately had some very cold weather (10° below zero) and sudden changes. Many bees in this locality have perished.

W. T. FARHAM.

Valley Mills, Ind., Jan. 4, 1879.

What is the best plan for extracting honey out of the cappings and pieces of comb that it sometimes becomes necessary to cut off?

J. J. WHITSON.

[Cappings may be placed into a pan with a wire screen bottom, which should be placed over another pan with a tight bottom. After draining all they will, place them into a pan, and put them into the stove oven where there is a slow fire leaving one of the doors open a little. They should be placed lightly in the pan—not packed down. The heat will slowly liquify the whole; when this is done put it away to cool. When the wax has cooled on the top, and while the honey is still warm, tap it at one edge, tip up the pan and draw it off. The wax and honey is thus separated without waste. This honey is of excellent quality.—ED.]

Centre Valley, Pa., Jan. 8, 1879.

Conversing with a neighbor on bee culture, I found him a box-hive man, one who never reads a bee book or periodical. He insisted that the drone laid the eggs. I tried to convince him that the queen is the prolific parent of the colony, but he would not believe it. I tried to convince him that the BEE JOURNAL would give him many useful hints concerning bee culture; "No!" was his answer; "he knew enough of bee culture without any journal." I laughed at his foolishness, and went home.

PRESTON J. KLINE.

Columbus Wis., Jan. 3, 1879.

Last spring I commenced with 1 colony of bees which I increased to 5. In August I bought 44. I am wintering them out of doors. They are in Langstroth hives. In November I removed the honey boards and placed a piece of unbleached cotton, double, over frames and then filled the upper part of the hive with clean straw. At this writing the temperature is for the second time 20° below zero. The hives are also, except 4 or 5, banked up, all but the front part, with straw. The only trouble I have had, is the

entrance to the hives filling with ice. Have cut out the ice of some hives every third day, since December 7th; since which time it has not been warm enough to thaw, even in the sun. The bees are so lively that they come to the entrance to attack me during this operation. In most of the hives I removed all the frames leaving but 4 or 5 in in the middle then put a division board each side of the bees. My hives contain 10 to 12 frames.

F. C. ELDRED.

Berkshire, N. Y., Dec. 16, 1878.

1 Will clipping a queens wings prevent swarming?

2 Will cutting out the queen cells prevent swarming?

3 Will narrowing the entrance to a hive so as to permit only workers to pass prevent swarming? If so, what is the exact width of an entrance that will permit a loaded Italian to pass and not permit a queen to pass?

4 What is the best arrangement for such an entrance?

5 What are the names of all the hives that are covered by patents?

6 What is Bingham's patent on the tube and bellows smoker?

7 Has any one a patent on a honey extractor or any part of one?

WM. C. LEONARD.

[1 No; It will prevent the queen, and consequently the swarm, from going away; but when the cells hatch, then the swarm can leave, if not cared for.

2 No; unless destroyed as often as the bees re-build them; and even then, a swarm sometimes issues before any cells are started.

3 Contracting the bee passage so that large queens and drones cannot pass, is a great hindrance to the workers and ventilation of hive. Mr. Heddon tells us that he has experimented largely in this matter, and believes he has the best "non-swarming attachment" yet devised, but even this is practically a failure. We understand that all attempts in this direction have proved futile.

4 Answered above.

5 Their name is "legion."

6 It is an ordinary one covering, the whole thing.

7 Mr. Muth has one, claiming the sloping-side of the comb-basket.—ED.]

Limerick, Ill., Jan. 10, 1879.

I received from you Cook's New Manual. It is better than I expected. It is the book that I have been wanting, ever since I first saw it announced in the JOURNAL.

Last spring my bees were in box-hives, but the swarms I put into Oatman's Modest. The box-hives having honey-boxes as a drawer, I put a pillow in them filled with timothy chaff and sticks to keep it up from the holes to absorb the moisture. It froze

on the top of pillow, but not in the holes from below, those without pillows have frost in the holes from below, almost closed. The Modest hive has four $\frac{1}{2}$ inch sticks across the frames; a quilt; then a 7 inch cap filled with dry oat-straw. They do not have half the amount of ice at the entrance that the box-hives have. All are on the summer stands, or open shed facing south-east. Some bundles of long hay are used as wind breaks which are bent over the hives.

E. PICKUP.

Gifford, Iowa, Dec. 12, 1878.

I have 63 colonies of bees, and I fear they are getting diseased. Some are dying off rapidly, and are crowded out at the entrance of the hive. I have over 40 colonies in a shed, enclosed all around. An opening in the center, about 20 feet, gives them plenty of room to fly out and return to the hives. I had 33 colonies in the same shed last winter and lost none. They have no dysentery yet, but I think they will have it soon. I lost 35 colonies 5 or 6 years ago, with bee cholera, and fear these will all go the same way. I use the 8 frame Langstroth hive. Please tell me, through the JOURNAL how I can save my bees.

H. S. HASTINGS.

[By this time, the fears of Mr. Hastings will have been realized, or the bees will be quiet and comfortable. If they have the dysentery, there is no remedy known.—ED.]

Indianapolis, Ind., Jan. 11, 1879.

I have 55 colonies, apparently in good order, at the Spring Hill farm-house apiary. The mercury outside was 14° below zero; inside it was 33° above. My house apiary pleases me much. I had 40 acres of alsike clover and 2 acres of mellilot, which the bees worked on, and some of my colonies gathered, I think, over 300 lbs. of honey. I sell all my honey for 20 to 25 cts. per lb.

W. A. SCHOFIELD.

East Townsend, O., Jan. 1, 1879.

I herewith send you a view of my home-apary and bee-house, for wintering bees and storing honey. I am a bee keeper in a modest way, having now 130 colonies. I had 95 at the commencement of the honey season. I took 7,000 lbs. of surplus, 4,500 of comb in sections, the balance extracted, and have sold nearly all at 17c. for selected comb at wholesale, and 20c. retail; 12 $\frac{1}{2}$ c. for extracted at retail, and 10c. wholesale. Have no trouble in selling honey put up in attractive shape.

H. R. BOARDMAN.

Winchester, Ill., Dec. 23, 1878.

From last week in May to last week in August was a good honey season. The early spring and through fruit bloom was wet and too cold, while the early frost cut off all fall bloom here, just as it began to afford bees pasture. I started with 6 strong and 1 weak colony. Had 2 natural swarms; 3 wild swarms came to me, and I bought 4 late in the spring. Got about 1,200 lbs. of honey, mostly comb. Sold the extracted at 15 cts.; comb 15 to 20 cts.—mostly 20 cts. Put 22 colonies into winter quarters; that is,

I have nearly all in double-walled hives with quilts, and from 6 to 12 inches of buck-wheat chaff on top. Improved my double-walled hive so that one can be opened clear, and either standing or hanging frames used in it, and either open or close top-bar. Shall try Armstrong "Centennial" the coming year. Success to the JOURNAL.

WM. CAMM.

Knoxville, Iowa, Dec. 15, 1878.

1. What is the cause of nearly matured brood not being capped over, but, instead, the cells are lengthened out?

2. There are 300 colonies within 3 miles of us. Is that over-stocking, when white clover, basswood and fall pasturage are good; if not, how many more colonies can be kept profitably?

3. How many cubic inches should a hive contain to give the best results?

4. Will colonies having no bee-bread breed before getting pollen, when fed?

We put 60 colonies in winter quarters December 1st, and intend to increase as fast as possible next year.

BITTENBENDER BROS.

[1. This is often the case where the brood is that of a fertile worker.

2. When these three sources yield well, all may pay a dividend; yet it seems to be the growing opinion among the most observing bee-keepers, that a location having every source except those mentioned would be over-stocked, and the yield from these would be less, *pro rata*, than if only one-third of that number of colonies were kept. Much, however, depends upon the bountifulness of the season and locality.

3. About 2,000. The tendency seems to be towards smaller rather than larger.

4. Bee-bread is essential to brood-rearing.—ED.]

Augusta, Ga., Jan. 10, 1879.

From the description of the Japan plum, *Mespilus Japonica*, by J. M. Putnam, Esq., of New Orleans, and the comment upon it by Prof. A. J. Cook, I fear many Northern bee-keepers may be tempted to try its cultivation. For the information of such, I will inform them that even the latitude of Augusta, Ga., is too cold for it to fruit. It is not worth cultivating higher than 33° N. South of this, it does well, and is all that is claimed for it.

J. P. H. BROWN.

Eagle Lake, Minn., Jan. 6, 1879.

I have 160 colonies in the cellar; had 87 last spring, and have obtained 1,400 lbs. of honey this season. I am interested in the improvement of Italian bees, but I do not think we can always rely on color. My Italians are uniform in marking and of beautiful appearance; they are better honey gatherers and much more pleasant to handle than hybrids. The sale of untested queens will ruin the qualities of Italians. Producers must have a bee that will gather honey when it is scarce.

H. A. SIMONDS.



New Orleans, La., Jan. 13, 1879.

I send a cluster of some flowers of the Japan plum taken from a tree yesterday afternoon. On the 4th, 5th and 6th we had a freeze and sleet that coverer everything quickly with a coat of ice, which remained on the trees for three days. Since that the weather has been alternately thawing and freezing. There are yet on them a quantity of buds and fresh bloom like those sent. The young fruit is not injured by the cold. The endurance of the tree is certainly extraordinary. I think we shall have abundant fruit in February or early March.

JNO. M. PUTNAM.

[This is indeed an extraordinary tree. The sweetness, strength and persistence of the odor is also remarkable.—A. J. COOK.]

San Diego, Cal., Dec. 28, 1878.

I am shipping extracted honey for myself and others direct to a house in Hamburg, Germany, and draw on them for advances equal to the selling price here. I have shipped 500 barrels of 300 lbs each, already, and shall probably send considerable more this winter. Any one who thus advances the price to producers, encourages the business of bee-keeping and benefits the community.

CHAS. J. FOX.

Lawson, Mo., Dec. 27, 1878.

I commenced the season with 150 colonies, in fair condition. The spring opened one month earlier than common, and bees did well up to about May 12th, when we had 8 days of very cold weather. Bees killed off all their drones and destroyed all queen cells. But they commenced swarming about June 1st, and my 150 colonies increased to 305 and I got 8,000 lbs. of white clover honey. I got no fall honey on account of severe drouth.

J. L. SMITH.

Millersville, Ill., Dec. 7, 1878.

I have a plant which grows from 4 to 6 feet high known as the spider plant, we had about one-tenth of an acre of it this season for bee pasturage. The plants should be set about 2x3 feet apart, in good soil to give a rank growth. It blooms from June until frost. Ours commenced to bloom in June, and I found bees on it the 18th of October, it was killed that night. We expect to plant several acres of it next season, and give it a good trial.

MRS. MOLLIE O. LARGE.

Wayne, Mich., Jan. 5, 1879.

Things trifling at first appearance may be of importance sometimes. When we discover a swarm of bees on the wing, it is of much importance to know from what hive they issued. Nine times out of ten it may be determined by viewing the ground in front and near each hive, for some little time after the swarm issues more or less young bees, too young to fly, will be found crawling thereon. It made be desirable to know when combs need pruning in consequence of age and the filling up with the cocoons and other matter, which prevents the possibility of the brood raised therein being of full size and perfect; notwithstanding, some have stated that they can be used

indefinitely, as the old bees cleaned out the cocoons. One remarks, that if the cells are small and the bees are small when they issue, they will soon grow to usual size. Not being a believer in either of these assertions, I examine my hives, in breeding time, after the colony has been confined a day or two by stress of weather and the young are sporting as it is called, and when in front of hives with very old combs I find many young bees, mere drawfs, some deficient in wing, imperfect and unable to fly, &c., I examine the hive, and if I find comb, that the bees have forgotten to clean out, some cells full, others half full, &c., I prune them. This may be done in the fall after breeding is over.

E. ROOD.

Sandwich, Ill., Jan. 20, 1879.

I have been interested in bees for several years and have closely watched all the plants visited by bees, growing in this part of Illinois, and I will say that the common hemp stands far ahead of anything I ever saw. Bees literally swarm on it, from early daylight till dark. It is a wonder that others have not noticed it and made it known. It is easy cultivated, growing so strong and rank as to take care of itself, if once started. I shall sow about $\frac{3}{4}$ of an acre, and I would be pleased to hear from others. What is your opinion in regard to the honey market for 1879? I have contracted all this year's crop at 10 cents per lb.; the purchaser to furnish barrels. It will be mostly extracted.

ALEX. WILDER.

[You did well. No man living can more than guess about the future—and one can do that as well as another. If you can make such a contract for next year, we should say, it could not be disadvantageous.—ED.]

Carrollton, Mo., Dec. 12, 1878.

This is one of the best counties in the State for bees and honey. G. W. Kennedy, a young man from Ohio began bee-keeping here in 1871 with 2 colonies of native bees, that season increased to 8; the winter being very bad he lost them all, so in the spring of 1873 he bought 2 more and took a new start. That year (1873) he only increased to 4, paying but little attention to his bees until 1875, when he increased to 7 colonies, which produced 700 lbs. of comb honey. This season he has 86 colonies of Italians. They produced 4,500 lbs. of comb honey and sold it at an average price of 14 cents per lb. During those years from 1873 to 1878 he has sold 50 colonies of bees and 65 Italian queens. He uses Langstroth and American hives but likes the Langstroth best for securing honey. Dr. Bolen, of Carrollton, is the bee king of this State. And Mr. Kennedy knows more of scientific apiculture than any other man. Dr. Bolen began bee-keeping here in 1871 with 7 colonies of bees; to-day he has 300 colonies of bees, all Italians, in American hives, and sold 7,000 lbs. of honey. This year he increases by division on K. C. Kidder's improved plan. To this he attributes his success. Uses Root's extractor. His market is Kansas City, Mo. The Dr. is one of the solid men of Carroll Co., and a reader of the BEE JOURNAL.

COSMO.

Columbia, Tenn., Jan. 7, 1879.

1. Will bees feed upon sorghum? If so, how would it do to thin the best article with water, and feed in combs, to sustain life during winter, and to stimulate to early breeding in the spring? I do not propose to feed for storing, but slightly to stimulate, and for sustenance when honey is scarce. Would it be detrimental to the bees?

2. I have observed that bees have a great fondness for apple cider. They flock to the cider-mill in such numbers, that I have to grind and press at night, to prevent their destruction. Do they gather honey from the cider; if not, what is the attraction? Is the cider beneficial or detrimental? They seem, also, to be greatly attracted by ripe and decaying peaches. What benefit, or detriment, do they get from them?

JOHN FOX.

[1. The sorghum prepared as you propose, might do for food to sustain life in the spring, but we would not advise its use in winter, nor for stimulating.]

2. We fear that all such juices of fruits are of little or no value, and may be the cause of death in many cases.—Ed.]

Napa, Cal., Jan. 4, 1879.

In the fall of 1877 I had 3 colonies of black bees and 3 of weak Italians. By purchases, in the spring of 1878, I had 15 colonies of blacks and 3 of Italians, in box hives. I Italianized all, and increased to 45; 4 being in improved Harbison hives; 6 in Quinby hives with closed ends; and 35 in Langstroths; all in good condition. I increased from 75 to 500 frames of good worker comb—equal to a gain of 71 lbs. of beeswax, allowing 6 frames to a pound. I have raised about 100 queens.

J. D. ENOS.

Oak Park, Ill., Dec. 17, 1878.

I have read the JOURNAL for two years and have been much benefited by it. I have now in the cellar and out-house 24 colonies apparently in good order. The lightest I put in the cellar to enable me to see to them during the winter and spring. For division boards I use frames covered with a piece of hardware paper. Cut a strip as wide as the frame, the long way; lay paper on the floor; commence at the bottom, lay the frame on the paper, turning the bottom end of the paper over the bottom bar of frame; tack it to the edge; take the top of the paper and double it down over top bar to the bottom, and tack that; then with a pair of shears cut off the paper a little longer than the frame, so that the edge will rest on the bottom board of the hive. Now utilize any old flannel shirt, sheet, coat, pants, &c., that you may have, by facing the one side of the frame with the cloth; using strips, &c., the paper should be clipped under the top bar to give a little as the frame is pushed down in the hive, but will touch the ends and bottom, making all tight. Try it, and see what a light, nice and warm division board it makes. It will be useful while making a breeding chamber in the spring.

G. W. BROWN.

Acme, Mich., Jan. 11, 1879.

Bees do not discharge their faeces except on the wing, when in health. The queen flies but once, to meet the drone. Two statements which I have never seen contradicted, and which lead to the following conclusion, viz: The queen never discharges any faeces. How is this? S. P. TRACY.

[Bees do discharge their faeces within the hive, when in health; it being then simply a small pellet of dry sediment, and hardly noticeable. At least such is the opinion of some of our closest observers. Many laws governing the males and neuters have no influence upon the queen.—Ed.]

Malcom, Iowa, Jan. 9, 1879.

We have had a month of severely cold weather with hardly any let up. Thousands of colonies of bees have died in this and adjoining counties in box hives, on their summer stands. Congealed masses of frost and ice filled many of the hives. I heard this evening of 60 colonies out of 100 that had died in one apiary. A few days ago I examined 40 colonies in my double-walled hives and every one was dry and in the best possible condition. I opened a smaller colony to-day, only about one quart, and they were lively and nice. When will beekeepers learn to arrange their bees in a comfortable hive that they may not lose from one-half to two-thirds of them every winter?

WM. CLEMENTS.

Liberty Centre, O., Dec. 20, 1878.

I have been to Linn county, Iowa, staying with Mr. Hunt, at Center Point, some 7 weeks. He has 272 colonies, but an accident, breaking one of his limbs, prevented him from attending to his bees. I found them filled with honey, which I extracted, though it was Oct. 22d when I got there. The report of Mr. Hunt, in the statistical table in the JOURNAL for Oct., was what he had obtained at the close of basswood bloom. He ran 108 colonies for box honey, which averaged about 50 lbs., making a total of over 5,000 lbs. That table gave Mr. Hunt 1,140 lbs. of extracted honey; since then I have extracted about 2 tons more. That is one of the best localities I ever saw for honey production. Mr. Hunt winters in the cellar successfully.

D. CLIFTON.

Columbia, Tenn., Jan. 6, 1879.

I propose to run about 25 colonies during the coming season—not for honey, but for increase. Apiarists appear to agree that the best method is that of division. Taking one or two frames of maturing brood, with the adhering bees, and with these make the new colony; supplying the place of the removed brood combs, by empty frames, or with empty combs, if you have them. This seems to be the method taught by Prof. Cook, in his book. This was the plan I had determined on, as a matter of safety and convenience, not having time to remain by the bees and watch them, during swarming time. In the January number of JOURNAL page 11, G. M. Doolittle, says: "If empty frames are supplied in the place of combs of



brood removed, that the bees will generally build drone comb in the empty frames." Having no empty combs, what am I to do? I do not want my hives filled with worthless combs, and my yard with worse than worthless drones. Had I better take the risks and trouble of natural swarming; or will Mr. Doolittle tell me how to divide, without empty combs, and have the bees build worker, and not drone comb? JOHN FOX.

The people of Brunswick, Mo., tell me that in 1860, for several days, the bees passed over this place in immense swarms all day long for three days, like swarms of grasshoppers in Kansas. They went in a south-westerly direction, and in Howard county they were stacked up like small hay-stacks; they hauled straw and covered them, then set it on fire and burned them up. The people are willing to swear to it. Now, is this possible or not? COSMO.

[The story is "too thin" to be believed by any intelligent bee-keeper of to-day. Undoubtedly they were flies, or something in some measure resembling bees. Think of the multitude of things, wholly impossible, that many good people have been willing to "swear to" in ages past. We are progressing, but superstition is not yet extinct.—ED.]

Borodino, N. Y., Jan. 7, 1879.

On the morning of the second day of this year it commenced to snow very fast and continued to do so till yesterday. At noon Jan. 2, the wind came up from the north-west blowing at a fearful rate, and the air was filled with drifting snow, in a twinkling. Thus it continued till last night and as a result a part of our bees are 10 feet under the snow, and most of them are out of sight. Our bee cellar, also, we have lost all track—all being one smooth plain of snow over nearly all our bee-yard. We have had no mail since Jan. 2, and have wished so many times for the January number of the AMERICAN BEE JOURNAL to read during this time. Our roads are from 4 to 12 feet under the snow. G. M. DOOLITTLE.

Callicoon, N. Y., Jan. 10, 1879.

I see on page 41, January number of your valuable BEE JOURNAL, that Mr. Heddon has gotten up a surplus honey register, which indicates the state of the boxes in a hive, whether full, nearly so, &c. It is neat and very useful." Without claiming the neatness, I have adopted a plan, practical and useful, in my apiary of some sixty hives, for precisely this object in view, where one glance over the whole apiary will give indications of hives needing looking after, or their probable arrival at that state. It is simply as follows: By taking any ordinary stick, like a piece of lath for instance, say 1 foot long, and placing it lengthwise with the eaves or outside edge of the roof or cap indicates the first stage; at right angles therewith, indicates nearly filled; placed on the center of roof or cap, full or being capped, etc., or any mode upon this principle will answer sufficiently; as no positive register of progress of surplus is needed in writing,

if so, the simple registering slates are good. The whole business of the apiary being made up of small (in themselves insignificant) items, this suggestion of mine is so simple, I think it will be adopted by many. With Cook's Manual, the New Year's gift I volunteered myself, I am more than pleased. It is up to the times in every particular, and not with canting tones does the Professor frown down new and useful inventions; but, on the contrary, compliments the ingenuity and genius of those who may improve upon the old—willing to reward honest labor, and thus keep the 8th and 10th Commandments, to which he refers (Exodus 20: 8, 10), a real incentive and legitimate zeal to spur on to Excelsior. This Manual is as far ahead of the old, as Langstroth's and Quinby's were such in their day. I hope the richest reward awaits the author. A. E. WENZEL.

Lansing, Mich., Jan. 9, 1879.

I wish to express my deep sorrow, that my friend, "Common Sense" (a sorry *nom de plume* for such an article)—for I recognize the style as that of a warm friend—should write the harsh letter about Mr. A. I. Root, which appeared in our January number.

If we have a reverent love for Christ's teaching, as the writer suggests, will we not avoid "evil speaking"? will we disobey the "judge not"? will we condemn, in the most ungenerous terms, a man who is working with untiring zeal to further the interests of our art, who has done a mammoth business so fairly that we hardly hear a word of complaint? whose daily walk among his neighbors is stoutly commended; and besides his immense business, finds time, aye, and inclination, to visit the jails, and the rough and dissipated of his neighborhood, working successfully to lead them to a better life? The men inured to crime, whom he has persuaded to better things, would certainly answer, No. I cannot defend some of Mr. Root's views and teachings, I do not admire his frequent personal allusions, nor his oft-repeated public references to his past wayward life; yet I can and do rejoice that he is striving, and I believe with success, to do good, and live a better life than he has in the past. Therefore, I can but feel that to compare him Uriah Heep, is very unkind and uncalled for. Would not "Common Sense" do far more good to write a kind personal letter to Mr. Root?—though not for publication, for such letters better never go to the public. He will then leave out harsh words, the odious comparisons, and will couple with his "reverent faith" more of Christian charity. Mr. Editor, I sincerely wish that you, as well as all our editors, would entirely omit in future, these unkind words; they make not for peace not good will; they are not profitable. A. J. COOK.

[Several articles on this subject, *pro* and *con*, are received, but having now given space to one on each side, we must be excused from publishing any more. The JOURNAL is "devoted exclusively to bee culture," and criticisms upon the "good taste" of self-accusations in the religious department of another paper, are quite "out of order."—ED.]

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We will send a tested Italian Queen to any one sending us **FIVE** subscribers to the **AMERICAN BEE JOURNAL** with **\$7.50**. The premium Queens will in every case be tested, but not sent till after July 1st.

Seeds or samples of merchandise can be mailed for one cent per ounce. Printed matter one cent for every two ounces. These must be tied up; if pasted, they are subject to letter postage. *Don't send small packages by express, that can just as well be sent by mail.*

For the convenience of bee-keepers, we have made arrangements to supply, at the lowest market prices, Imported or tested Italian Queens, Full Colonies, Hives, Extractors and anything required about the Apiary. Our Illustrated Catalogue and Price List will be sent free, on application.

We have gotten up a "Constitution and By-Laws," suitable for local Associations, which we can supply, with the name and location of any society printed, at \$2 per hundred copies, postpaid. If less than 100 are ordered, they will have a blank left for writing in the name of the Association, etc. Sample copy will be sent for a three-cent postage stamp.

Our answer to all who ask credit is this: We sell on small margins, and cannot afford to take the risks of doing business on credit. If you want to do business, we should be obliged to add at least 10 to 20 per cent. more to our prices, to make up for those who would never pay, and to pay the expenses of keeping book-accounts with our customers—this we know our Cash customers would not think to their advantage.— This rule we must make general in order not to do injustice to any one. The cash system gives all the same chance to get ahead, and the credit system works to their injury. In justice to all we must therefore require **Cash with the order.**

The report of the N. W. Ohio Convention, as published in a Toledo paper, was received after our "Convention" department in this JOURNAL was printed. It contains the following as the action of that Convention:

"The merits of the different bee publications were discussed, and Mr. Everett complained of unfair treatment by the editor of the AMERICAN BEE JOURNAL in reference to his extractor and the suppression of the most important part of the advertisement. Mr. Everett's friend, Mr. Faust, was appointed a committee to examine into and report at the next meeting if any cause for complaint exists. Jno. Y. Detwiler, of Toledo, O., suggested the feasibility of organizing the bee-keepers of America into a co-operative association for the purpose of publishing a paper, published solely in the interest of its patrons and not alone in the sale of its editor's wares."

The report of the Convention, with these charges, was published in the Toledo paper during the first week in January. Yet it was not received at this office until the 21st ult. Meanwhile copies thereof have been sent to prominent bee-keepers in different States with letters denouncing all the Bee papers in general and the BEE JOURNAL in particular. These are asked to be considered "strictly confidential" and kept "secret" until the arrangements are made to carrying out the latter part of the above programme. Several persons to whom such documents were sent, have written to us for "the facts." But for this request and the "secret" scheming we should pass it all by in silence. But as our friends demand that the facts be made public, we cheerfully comply. Before doing so, we quote the following from a correspondent, who for the present shall be nameless :

"Last night I received a lot of papers concerning an undertaking against all the bee publications—not so much against the BEE JOURNAL as it is against *Gleanings* and the *Magazine*, but really against them all...I was cautioned to keep it a secret until all the arrangements could be perfected, and I shall do so with reference to their plans. You have offended one man about advertising—was there cause for this feeling?"

There was *no cause* for the feeling, nor for the action of the Convention, as we shall proceed to prove beyond the possibility of a doubt.

A display of honey, wax and bee appliances was made last fall at the American Institute Fair in N. Y., during the meeting of the National Convention. Soon after arriving we received a notice that we had been appointed one of the judges on honey, wax, extractors, &c., by the Board of Managers of the American Institute. The judges met, performed their duties to the best of their ability with the best of feeling, and after the Convention adjourned, went home.

About a month afterwards Mr. Everett sent us some matter to appear in his advertisement, concerning his having received the award at New York Fair, adding these words: "competing with the Muth, Novice, and Excelsior extractors." We immediately addressed him this:

Chicago, Ill., Nov, 19, 1878

FRIEND EVERETT :—Of course you are fully aware that no other extractor was entered for competition but yours, and hence it is unjust to say that it was in competition with any—being the only one, it had to take the award. If you persist in having it published of course I must make statement of the facts, in



justice to Muth, Novice, &c., as I was Chairman of the judges; as Novice's was not there—only Nellis' make of it, and that would hurt you. Right wrongs no one. If you omit the words "competing with the Muth" &c., it will need no comment.

I am yours, &c., THOMAS G. NEWMAN.

He replied as follows:

Toledo, O., Nov. 20, 1878.

FRIEND NEWMAN:—I was not aware that my extractor was the only one on exhibition for competition, as I saw the judges examining all the extractors, as I supposed; but such being the case you may leave out the words "competing" &c., as mentioned in your letter. Truly yours, B. O. EVERETT.

The matter was we thought settled till we received the following letter:

Toledo, O., Dec. 16, 1878.

FRIEND NEWMAN:—...I have concluded to have the words "competing" &c., added to my advertisement, as in my first letter. The officers of the Association say that in the judgment of the judges, my extractor was the best there—and that is still the verdict of the two judges (yourself of course excepted, as I suppose, you being interested had no voice) so I see no reason why I am not entitled to the laurels fairly won. Yours, &c., B. O. EVERETT.

In order to ascertain, whether we could be mistaken, we wrote the judges and the Secretary of the American Institute for the facts, with the following results:

New York, Dec. 31, 1878: THOMAS G. NEWMAN ESQ., Dear Sir:—Your favor of the 28th inst., at hand. In reply I beg leave to say that Mr. B. O. Everett was the only party who entered Honey Extractors; although there was others in the exhibition, I think belonging to Mr. King and others. The judges were the following: Thomas G. Newman, Chairman; J. W. Porter and H. Alley. I enclose a certified copy of the entry. Yours, &c., JOHN W. CHAMBERS, Sec.

The following is the certified copy of the original entry:

"Groupe 3, at the 47th exhibition of the American Institute, held in the city of New York, October and November, 1878.

"No. 1593 Honey Extractors. B. O. Everett, Toledo, O." "This is a true copy of the original on file."

JOHN W. CHAMBERS, Sec., N. Y., Dec. 31, 1878.

Charlottesville, Va.: FRIEND NEWMAN:—...As to the award on Extractors, my recollection is clear; you said that as no others were exhibited in competition, we had to give the award to the Everett.... Mr. Everett has written to me complaining that you objected to his advertisement on the grounds stated. I answered as above, strongly advising him not to insert the clause or try to, for it would lead to ill feeling and that I thought such advertisements in bad taste.... J. W. PORTER.

Wenham, Mass., Jan. 7, 1879: FRIEND NEWMAN:—...You are right in your opinion of it. I know that only the Everett extractor was entered; nevertheless he did compete with all the others, else why were they all there. I do not know why they were not entered. HENRY ALLEY.

The latter are extracts from a long letter, but convey the writer's idea. He thought that Everett's extractor competed with all on exhibition—no matter whether entered or not. Any one can see, however, that such is never the case. To be competitive at any fair, everything must be entered and the entrance fee paid. If not who would incur that expense?

With all this testimony (excepting Mr. Alley's) before us (see date of letter), we concluded we should be doing Mr. Everett a favor as well as our readers justice in omitting the words "competing with Muth, Novice," &c., in the JOURNAL for January. We thought he had taken a rational view of it; since we had not heard anything further till we received the Convention report in question, and the letters of inquiry. We saw Mr. E. at the Michigan State Convention

and talked with him. He appeared pleasant to us, but we since learn that he was then endeavoring to prejudice some of our friends against us—while at the very same time we were defending his character and doing him all the good we could, as will be seen by the following: At the Carson City Convention, Mr. Robertson, of Pewamo, Mich., publicly denounced Mr. Everett for unfair dealing, and condemned his extractor.—Prof. Cook, Mr. E. J. Hetherington or any one present, will testify that we defended his character before the Convention, asserting that we felt sure Mr. E., would make the matter satisfactory. We further told Mr. Robertson that the new gear now used by Mr. E., was good and strong.

As Mr. Robertson went with us to the State Convention, we took pains to introduce him to Mr. E., and stated before both parties, how we had defended him, &c. In consequence the matter we understand was arranged satisfactorily. We little dreamed that Mr. E., would, within a month, pay us for this kindness in the way he has, before the N. W. Ohio Convention, near his home at Toledo. But—"Tis well!"

At the Michigan Convention we were also appointed a committee on apianary supplies with Mr. E. J. Hetherington and Mr. Geo. E. Steele. Here, again, we did him service while he was privately engaged in trying to poison the minds of several members of the Convention against us, saying we were an interested party, and opposed to him, as we since learned. He was "complaining" about our being on the committee—which we asked to be relieved from, but was refused. As to our position before the committee let the following from our colleagues testify:

East Saginaw, Dec. 27, 1878: FRIEND NEWMAN:—In regard to the matter of the Everett extractor, we decided merely mention it as on exhibition, as it was fitted with the old gear. But at your suggestion, as he had a sample of the new gear on exhibition, not attached to the extractor, and on your recommendation as you had seen a machine fitted with it, we decided to recommend it as worthy of special mention. Yours truly, O. J. HETHERINGTON.

Elk Rapids, Mich., Jan. 4, 1879: FRIEND NEWMAN:—The Everett extractor was of the older pattern, Mr. Everett having failed to get the newer style there as he desired, but exhibited the new gearing separately. The Committee at first hesitated to recommend on account of incompleteness of the sample before them; but were unanimous I think, in praise of the machine when the new gearing should be adopted, with some minor improvements suggested by the inventor. If you had an interest in any other extractor you had also the "angelic" faculty of not "praising" yourself nor wares, before the Committee, and I had no idea that you could have an interest in any until I was so informed at the breaking up of the Convention. Be that true or false, I cannot say, but if you did (?) have a pet extractor, why on earth did you not bring it along, so that the Committee might have a chance to praise it, or so you might make a minority report and praise it yourself? I leave it to those who know, to answer. GEO. E. STEELE.

We have no interest in any apianary supply on earth, and try to be fair and honest in expressing our opinion on all that are offered for sale, and sell any and all such, only on their merits.

We like Mr. Everett's extractor with the new gearing very well, and so told the committee. For this is he our enemy?

Our object for omitting the sentence in Everett's advertisement was not only to do justice to Messrs. Muth, Novice, King, Nellis, Coffinberry, &c., but also to save this



explanation which cannot but be detrimental to Mr. E. Had he been satisfied to have stated the fact that the medal was awarded at the American Institute Fair, and not so persistently claimed that it was over other extractors not entered for competition it would have needed no comment.

One question will settle forever the whole. If he was in competition with all the extractors simply on exhibition—why did he pay \$7.00 to enter his extractor for competition for the award? It suggests an answer which of itself would settle the whole controversy.

As Mr. Everett paid \$7.00 for entering his extractor for competition, and as others did not care to do so, he was entitled to the award, but to say that he competed with others, not so entered, is untrue.

When we cease to control the advertising columns of the BEE JOURNAL—deciding whether or not to insert what may be offered, we shall also cease to publish the JOURNAL itself! Nearly every month we decline advertisements that we deem unsuitable, and shall continue to do so, as long as we publish the paper.

As to organizing the bee-keepers of America into an association for publishing a bee-paper, let all "do as seemeth them best." We do not think they can be easily persuaded to take stock in such an impracticable undertaking. If history teaches anything—it suggests an early demise for it, loaded with debt and disgrace. The springing up of so many bee-papers now, suggests the history of 10 years ago repeating itself. Will men ever learn wisdom from the past?

☞ In the advertisement of Bourgmeyer's 6 inch Foundation Machine, a mistake was made by him in making the copy. The price should be \$25—not \$20. It is now corrected.

☞ J. B. Skinner, Carleton, Neb., wants to hear from any one having tried Catalpa. He desires to plant it extensively if it is a honey producer. Any one having had experience with it will oblige him by communicating the result to him.

☞ The date after the name on the wrapper label of every paper indicates the time which the money received pays. Some do not seem to understand this and hence ask the question—"To what time have I paid?" By consulting the label on the wrapper every one can instantly determine how their account stands.

☞ We have received from the music publishers, G. D. Newhall & Co., of Cincinnati, O., three excellent songs, viz: "The Old-fashioned Fire-place," "Lillie Dear," and "Jennie with the Nut-brown Hair."

Cook's Manual of the Apiary.

Concerning this excellent book, which should be in the hands of every one keeping bees, the following unsolicited testimonials are received: S. M. Tracy, Professor of Agriculture in the University of Missouri, says:

"The Manual contains more practical advice and directions than any, or all other books I have ever seen on bee-keeping. I cannot speak too highly of it."

The *Popular Science Monthly* says: "It is a handsome volume, elegantly illustrated, and contains all the information needed by those who desire to keep bees."

The *Michigan Homestead*, of Detroit, remarks: "We are often asked whose bee-book is the best?" At the head of the list stands that of Professor of Entomology at Michigan State Agricultural College, Albert J. Cook. It is entitled "Manual of the Apiary," and is published at \$1.25 per copy by Messrs. T. G. Newman & Son, Chicago, Ill. This work is practical, scientific, fully up to the times, and written in plain language.

Advertising Value.

Some idea may be obtained of the value of the BEE JOURNAL as an advertising medium from the following letters:

Dundee, Ill., May 24, 1878.
We have been literally over run with orders. Our whole page advertisement in THE AMERICAN BEE JOURNAL is the cause of it. It is the best investment we ever made.
J. OATMAN & Co.

Hartford, N. Y., Sept. 21, 1878.
I must say that the A. B. J. is a better [advertising] medium [than *Gleanings*] and gives lower prices.
J. H. MARTIN, in *Gleanings* for Nov., 1878.

As an advertising medium for reaching an enterprising, thrifty class of farmers, such as bee-keepers always are, the AMERICAN BEE JOURNAL has no equal.—*American Grocer*, of New York.

New York, Aug. 9, 1878.
An order for honey, from Akiers in French Africa is just received, and the letter says that our address was obtained from THE AMERICAN BEE JOURNAL.
H. K. & F. B. THURBER & Co.

St. Mary's, Ind., Nov. 21, 1876.
I find THE AMERICAN BEE JOURNAL a good advertising medium, and the charges are reasonable.
THOS. J. WARD.

☞ Those wishing a Premium Queen for getting up Clubs will now please send five subscriptions and \$7.50, and we will send them a choice queen in July.

☞ Should any forget our address when on a visit to Chicago, they can easily procure it by consulting the City Directory to be found in almost every hotel and store.

☞ Gregory's Catalogue of Vegetable and Flower Seeds is received. It contains 60 pages and is very attractive. All who are interested in seeds should send for a copy. See advertisement in this JOURNAL.



Honey Markets.

CHICAGO.

HONEY.—White clover, put up in single-comb boxes, in fair demand. Prices paid for such, 10@13c. When more than 1 comb in a box, 9@10c. Dark, in the comb, slow sale at 8@10c. Extracted Honey, white, 7@8c.; dark, 6@7c.

BEESWAX.—Prime choice yellow, 23@25c.; darker grades, 16@20c.

NEW YORK.

QUOTATIONS.—Best fancy white comb honey, new, 12@15c.; extracted, new, 7@8c.; buckwheat comb honey, 10@12c.; beeswax, prime, 27½c.

H. K. & F. B. THURBER & Co.

CINCINNATI.

COMB HONEY.—In small boxes, 10@13c. Extracted, 1 b. jars, in shipping order, per doz., \$2.50; per gross, \$28.00. 2 b. jars, per doz., \$4.50; per gross, \$50.00.

C. F. MUTH.

CALIFORNIA.

We have had rain in the Southern counties, which insures bee pasturage, and those who were holding their honey for a dull season are now shipping it in. Our best market for beeswax has been Hong Kong and China; new they are stocked, and the market here is dull at 20@22½c.

Quotations for comb honey are: White, 9@11c.; dark to medium, 7@8c.; extracted, 4½@6c.

STEARNS & SMITH, 423 Front St., San Francisco, Cal.

Sutliff's Smoker Corner.

Arcadia, Wis., Nov. 20, 1878.

I like the Smoker exceedingly well. In fact, it is perfection itself. I can control the most vicious hybrids at will. The long steady stroke gives a volume of smoke which I think cannot be excelled.

E. A. MORGAN.

Lake Maitland, Fla., Nov. 27, 1878.

I have received the Smoker. I have shown it to many, and all with myself pronounce it decidedly the best we have seen.

E. T. STURDIVANT.

Mr. Bailey used one of Novice's smokers, and burned his fingers with it several times. He has now bought one of mine, and is well pleased.

Mr. Scofield, Nashua, Iowa, having worn out one of Quinby's, has bought mine, and says he would not take \$5 for it.

L. SUTLIFF.

Charles City, Iowa.

Local Convention Directory.

1879.

Time and Place of Meeting.

Feb. 14.—South-Western Ohio, at Lebanon, O.

April 1.—Central Illinois, at Hillsboro, Ill.

May 1.—Southern Kentucky, at Gainesville, Ky.

6.—Albany County, N. Y., at Clarksville, N. Y.

6.—Central Kentucky, at Lexington, Ky.

7-8.—West. Ill. & Eastern Iowa, at Hamilton, Ill.

8-9.—Muscatine District, at Muscatine, Iowa.

21.—North Missouri, at McCredy, Callaway Co.

28.—North-Eastern Wisconsin, at Hartford, Wis.

Oct. 21.—National Convention, at Chicago, Ill.

In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.



**Pure Italian Queens and Colonies
For Sale for 1879.**

The best is the cheapest at any price. Circular sent free. Address, D. A. PIKE, Box 19, Smithsburg, Washington Co., Md.

2-5

EXTRA EARLY QUEENS,

Bred from prolific Pure Italian Mothers, will be ready to ship in March, 1879. Also, all kinds of apianian supplies made and sold at the most reasonable prices. Correspondence solicited.

J. W. WINDER,

"GULF OF MEXICO APIARIES,"

Terre Bonne, Louisiana.

A club for the BEE JOURNAL may be sent all to one post office or to as many post offices as there are names in the club.



IF YOU WANT



Supplies for the Apiary, send for our price-list before making your purchases for 1879. If you want

Comb Foundation of Best Quality, and for **less money** than heretofore, send for our price-list and learn how 'tis done. We sell **GLASS** for honey-boxes,

Tin Separators, Bee-Smokers, Honey Extractors, Wax Extractors, Honey Knives, Prize Boxes, Sections, Bee Hives, Comb Foundation,

and many other things, all at **astonishingly low prices.**

Italian Queens, Nucleus Colonies and Full Colonies of Italian Bees,

of the **CHOICEST STOCK** in the country, will be furnished in any quantity, at the lowest living prices. Our **CIRCULAR** contains much valuable information, and tells you the **best methods** of introducing queens, artificial swarming, how to secure the

MOST SURPLUS HONEY,

and how to obtain the **HIGHEST PRICE** for the same. Our arrangements are such that we shall be

HEADQUARTERS

for apianian supplies during 1879. If you have any doubts on this point, just send us your name on a postal card, and our circular will be forthcoming, showing you how to **SAVE MONEY** in buying supplies

Our Motto: The Best Goods at the Lowest Prices.

Address,
1-tf

HERBERT A. BURCH,

South Haven, Mich.

**LOOK HERE!
HART'S
High-Pressure Bee-Hive.**

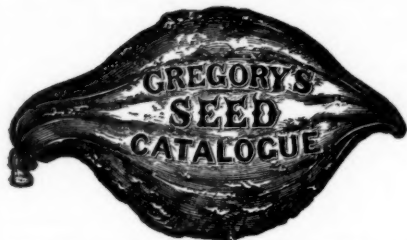
It has been said that the Langstroth Improved was the coming hive. I wish to say to those interested, that the Improved Langstroth has come and been here, patented in 1868, and again improved and patented in 1872. I will not say as some have said in advertising, that it is the best hive ever offered to the public, for I have never seen all the hives offered, but am vain enough to think, in offering my hive to the public, that it possesses more advantages at less cost than any other hive made public, leaving it to be decided by good judges, and if I should come out second best, shall be willing to be called late to dinner—quite a sacrifice. Will state some of the points: 1st. It is double and triple walled, side opening, fast or loose bottom; adjustable portico and honey boards can be used in single or two story; long brood chamber or compounded, and can be adjusted so as to conform to the size of a swarm, from a nucleus up to a mammoth swarm of 12,000 cubic inches; can be used exclusively for surplus comb honey, or extracted; for building up colonies or a non-swarmier, etc.

Any person wishing to know more of the advantages of the hive, send 25 cents in stamps, and receive pamphlet of fifty pages, giving full description of hive and workings, with much more useful matter for beginners. I will simply say that I will dispose of territory at very low figures, or if honey gets much cheaper, I think I will give it away. In the meantime would like to correspond with those manufacturing hives in any part of the United States, to make and sell on a royalty or otherwise.

Appleton Wis., January 27, 1879.

A. H. HART.

2-3



My annual Catalogue of Vegetable and Flower Seed for 1879, rich in engravings, from original photographs, will be sent free to all who apply. Customers of last season need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. Printed directions for cultivation on each package. All seed warranted to be both fresh and true to name; so far, that should it prove otherwise, I will refill the order gratis. The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables. I invite the patronage of all who are anxious to have their seed directly from the grower, fresh, true and of the very best strain. **New vegetables a specialty.**
 12-5t
 JAMES J. H. GREGORY,
 Marblehead, Mass.

J. E. MOORE'S PERFECTION HONEY BOX.

Patented May 7th, 1878.

CIRCULARS FREE,
Address, BYRON APIARY,



J. E. MOORE,
BYRON, N. Y.

Bees!---1879.---Bees!

Full Colonies, Nuclei and Queens Cheap. Supplies furnished. Satisfaction guaranteed. Write for particulars. S. D. MCLEAN & SON, Culleoka, Maury Co., Tenn. 2-7

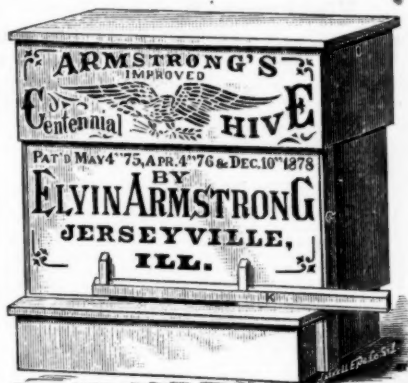
1865.— THE —1879. HONEY HOUSE.

C. O. PERRINE, 54 & 56 Michigan Av., Chicago.

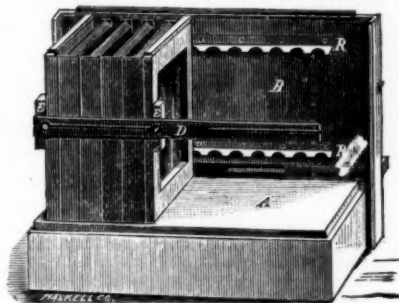
As a Manufacturer of

COMB FOUNDATION,

I can say my goods have given entire and universal satisfaction. The ruling low prices were made by me, and any one desiring any considerable quantity would do well to consult me before buying elsewhere.
 17 Market price for Beeswax.



This Hive has many valuable improvements not found in other Hives. The new clamping-bar D, and jaws E, E, are the best arrangement for clamping brood-frames together now in use. The Racks, R, R, for holding the front ends of brood-frames so they can be turned aside for inspection, or removed without disturbing the surplus sections on top, is a feature found in no other hive. Bees winter well in them on their summer stands, when properly packed with



chaff. They give entire satisfaction wherever used. F. C. Frost, of Plattsburg, Mo., bought 57 of them last spring, and says he is so well pleased with them that he will want 100 more this spring.

They have become a great favorite with many practical bee-keepers throughout the country.

SCALE OF PRICES.

1 Sample Hive and individual right.....\$8 00
 Complete Hives.

In lots of 6, each.....	\$3 50
" " 12, ".....	3 40
" " 25, ".....	3 30
" " 50, ".....	3 20
" " 75, ".....	3 10
" " 100, ".....	3 00

Material, Cut ready to Nail—Everything furnished except Nails and Glass.

In lots of 6, each.....	\$2 25
" " 12, ".....	2 20
" " 25, ".....	2 15
" " 50, ".....	2 10
" " 100, ".....	2 00

My new 24 page pamphlet sent free to all.
 Address, ELYIN ARMSTRONG,
 Jerseyville, Illinois.



Bingham & Hetherington HONEY KNIVES!



Are used plain, if the combs are held upright, and with the cap-catcher, if laid on a table. They are not like any other honey knife ever made. They are superior in finish and temper, and do much more and better work. No one can afford to be without one. Plain, \$1.00; with movable cap-catcher, \$1.25. Send for Circular for dozen rates for Knives and Bingham Smokers to BINGHAM & HETHERINGTON, Abronia, Allegan Co., Mich.

Below is one of the many letters received:

Cherry Valley, N. Y., Jan. 5, 1879.
Messrs. Bingham & Hetherington: Dear Sirs:—I received the knives all right, and on account of their superiority feel that you and bee-keepers as well are entitled to a report. I much prefer it to any knife I ever uncapped with, for the reason that I can uncup much more honey. But a better test is in the hands of three or four of my men, who used them for several consecutive days, and, without exception, pronounced them the best knives I owned. One went so far as to insist that he could uncup one-third faster than with any other knife, and when uncapping piece boxes, he demonstrated it. You may send me one half dozen of them.
J. E. HETHERINGTON.

Bee-Keepers' Supplies!

I shall continue to sell, at reasonable rates, a large variety of Bee-Keepers' Supplies, such as

MUTH'S ALL-METAL HONEY EXTRACTOR,
UNCAPPING KNIVES,

WAX EXTRACTORS,

LANGSTROTH BEE HIVES,

SECTIONAL BOXES,

SQUARE GLASS HONEY JARS,

to hold one and two pounds each, with Corks, Tinfoil, Caps and Labels, $\frac{1}{2}$ lb. Tumblers, Glass Fruit Jars, &c.

COMB FOUNDATION,

BEESWAX, GLOVES, VEILS, STRAW MATS, ALSIKE CLOVER SEED,

as well as a great assortment of Garden and Field Seeds, &c. For further particulars address,

CHAS. F. MUTH,

2-1f 976 and 978 Central Ave., Cincinnati, Ohio.

L'APICULTEUR. is the title of the French Monthly Journal devoted to bee-culture, edited and published by Mons. H. Hamet, Rue Monge 59, Paris. Price 7 francs.

1879.



1879.

REV. A. SALISBURY & HAYES,
CAMARGO, ILL.,

Breeders of Pure Italian Bees and Queens, from Imported and Home-Bred Mothers, and Manufacturers of Hives, Prize Boxes, Comb Foundation, and all general Apian Supplies.

BEEES.

Reserved and Early Tested Queens.....	\$3 00
Queens, July to September.....	2 50
Colonies of 10 frames.....	9 00
" 12 ".....	10 00
Nucleus, 1 frame.....	4 00
Comb Foundation, 10 lbs. or over, per lb.....	50

Wax cleaned and worked for 25c. per lb., or on one-half shares.

Send for Circular.

2-7

SECTIONS! SECTIONS!!

Before ordering Sections, send 3c. stamp for sample of our snow-white poplar-wood section boxes, so much admired at the National Convention. Any size made to order. Price greatly reduced.

Circulars free.

A. E. MANUM,
Bristol, Addison Co., Vermont.

ITALIAN QUEENS,

1879.

Price, April, May and June.....	each, \$3 00
" July, August and September.....	" 2 00

STANDARD OF PURITY.

All Queens guaranteed to be of good size, vigorous and producing workers large and uniformly marked with three distinct yellow bands, of fine golden color. No Circulars. [2-1f] A. F. MOON, Rome, Ga.

ITALIAN NUCLEI.

Strong 4 frame Nucleus, in new hives, all complete, for.....	\$5 00
Two frame nucleus.....	2 50

All Queens reared in full colonies, from a choice Imported Mother.
HIEAM ROOP,
2-1f Carson City, Montcalm Co., Mich.

Hives and Section Boxes.

Material for Langstroth Hives, with 9 Frames and 6 Cases for sections, in the flat.....	\$1 00
Sample Hive, in the flat.....	1 25
Dovetail Section Boxes, any size under 6x8 in., in lots of 500.....	3 50
" " 1,000.....	6 50

Prize Boxes ready to nail at same prices. Send for Circular and Price-List. W. D. PARKER, Manufacturer, Defiance, Ohio. 2-5

2,000,000 Strawberry, Raspberry, Blackberry, Currant, Grape Vines, Asparagus Roots, Peach Trees.

100 SELECTED VARIETIES.

Genuine Stock. Quality best. Prices lowest. Send for free Catalogue to JOHN S. COLLINS, Moorestown, N.J.

HEAD-QUARTERS!

We wish thus early, to inform our friends and patrons that we are in the field and
READY FOR BUSINESS!

For the Season of 1879 we shall be the **HEADQUARTERS** for Langstroth and Modest Hives, Prize Boxes, Separators, and all the necessities in the bee-keeping line. As we are just a **LITTLE AHEAD** of ALL **COMPETITORS** in producing a fine article of **COMB FOUNDATION**, we shall lead the trade!

Make a note of these points, and write for our **NEW PRICE LIST**.

J. OATMAN & SONS,
Dundee, Kane Co., Ill.

THE VOICE OF MASONRY AND FAMILY MAGAZINE FOR 1878.

Will be edited as heretofore; will contain 900 pages of Masonic and Family Literature: will be finely illustrated, and will furnish a greater variety of articles from a greater number of contributors than has appeared in any preceding volume. No proper efforts will be spared in making it, beyond question, the most attractive and valuable volume of a Masonic and literary magazine ever published. Published monthly, at \$3.00 per annum, in advance. Single copy, 30 cents. Address **JOHN W. BROWN**, Publisher, room 12, 182 S. Clark St., Chicago, Ill.

GEORGE GRIMM, OF JEFFERSON, WISCONSIN,

herewith respectfully gives notice to the public, that his Circular and Price-List of Italian Bees for the year 1878-9, is ready, and that he is selling at his usual low prices.

1879.-H. ALLEY'S-1879. Circular and Price-List.

Our Circular, containing information valuable to any bee-keeper, will be ready in December, and sent free to all applicants. It will tell you about Italian and Cyprian bees, one-dollar queens, the Massachusetts bee-hive, section boxes, comb foundation, bel-lows smokers, how to introduce queens, and in fact will tell you something about almost everything used about the apiary.

I shall use white poplar wood for our section boxes in future. This wood makes the neatest cap in use. Send 3c. stamp for sample. **H. ALLEY,**
12-1f Wenham, Essex Co., Mass.

AT REDUCED RATES!

1879-Early Italian Queens.-1879.

Imported and home-bred Queens, Nucleus Colonies, Full Colonies. For quality and purity, my stock of Italians cannot be excelled by any in America.

If you want the best Movable-Comb Bee-Hives, suited to the Southern climate, Honey Extractors, Bee-Vests, Smokers, Feeders, Gloves, or bee-fixtures of any kind, send for my new Circular. Address,
1-6 Dr. J. P. H. BROWN, Augusta, Ga.

J. E. MOORE'S Perfection Honey Box.

(Patented May 7, 1878.)

Made to fit any sized Sections. Circulars mailed on application.

BYRON APIARY,

8-1f J. E. MOORE, Supt., Byron, Gen. Co., N. Y.

In the Market again with 100 Colonies of ITALIAN BEES,

with young, fertilized Queens, less than 60 days old, at \$5.00 per Colony. We shall continue to rear Queens through the season as usual.

Tested Queens, per dozen\$25 00
Untested Queens, " 10 00

Safe arrival guaranteed. Address,

D. STAPLES & SON, Columbia Apiary,

1-6 Columbia, Tenn.

BEFORE PURCHASING

Supplies for your Apiary, send a postal card with your name (and if you will do us the kindness, those of bee-keeping neighbors) for our illustrated circular of Apiarist's Supplies, of every description; sample Sectional Box, and Comb Foundation made on the

Dunham Foundation

machine, which is the latest improvement in that line. We wish to place these samples before

EVERY READER

of this JOURNAL, and hence offer them **FREE**. Just send your name at once. Special attention given to rearing Italian Queens and Bees.

We have secured the general agency of the above machine.

The highest price paid for Beeswax.

1-1f J. C. & H. P. SAYLES, Hartford, Wis.

Foundation Machines.

12 inches wide.....\$40 00
9 inches wide..... 30 00
6 inches wide..... 25 00

Every machine warranted. On receipt of 10 cents, I will send a sample of the foundation made by the machine.

12-1f JOHN BOURGMEYER, Fond du Lac, Wis.

SPERRY & CHANDLER'S NORTH STAR HIVE.

There are now over 1,000 of these Hives in use in different parts of the United States, and wherever tried they are pronounced the best Hives before the public for all general and special purposes. We are now prepared to promptly fill all orders for the North Star, or Improved Langstroth, with our patent Manipulating Side. Samples of surplus honey taken from the North Star, as also our hives in use, may be seen at the American Bee Journal office. Send for illustrated circular—correspondence solicited.

Address

SPERRY & CHANDLER,

974 W. Madison Street,

OF AMERICAN BEE JOURNAL, Chicago, Ill. 8-1f

THIS NEW EGGLESTON'S ELASTIC TRUSS

Has a Pad differing from all others, in cup-shape, with Self-Adjusting Ball in center, adapts itself to all positions of the body, while the BALL in the cup PRESSES BACK the INTESTINES JUST AS A PERSON WOULD WITH THE FINGER. With light pressure the Hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free.

Eggleston Truss Co., Chicago, Ill.

8y1

CHEAP HIVES!

Material, planed on both sides, for a one-story, 8-frame Langstroth, movable-frame hive, with 7-inch cap, including all of material for a complete hive, prepared ready to nail, for 50 cents each.

Nailed and finished complete, 75 cents.

Other sizes proportionally low.

We have improved machinery, specially adapted to this manufacture, and are able to get out a No. 1 hive at these low prices. (THEY ARE NOT POOR BECAUSE CHEAP.) We will also give a liberal discount from these prices on orders of 25 or more at a time. Dove-tailed honey and section boxes VERY CHEAP.

Send for Price-List.

LEWIS & PARKS,

successors to G. B. LEWIS,
Watertown, Wis.

12-m6



11y1

JOYFUL News for Boys and Girls!
Young and Old!! A NEW IN-
VENTION just patented for them,
for Home use!

Fret and Scroll Sawing, Turning,
Boring, Drilling, Grinding, Polishing,
Screw Cutting. Price \$5 to \$50.

Send Stamp and address

EPHRAIM BROWN, Lowell, Mass.

Baker & Co. Designers
—AND—
PHOTO ENGRAVERS
ON WOOD.
COR. CLARK & MONROE STS. CHICAGO.
DEALERS IN ENGRAVING TOOLS & ENGRAVERS' OUTFITS.
ORDERS BY MAIL SOLICITED.

The Western Stock Journal AND FARMER!

CEDAR RAPIDS, IOWA.

The only Stock Journal published west of the Mis-
sissippi, and the leading agricultural paper of Iowa.
Only \$1.50 per year; in clubs of five, \$1.25 each; in
clubs of ten or more, \$1.00 each.

Sample copy free.

1-2

NELLIS' FLORAL INSTRUCTOR

An elegant illustrated quarterly, devoted to gar-
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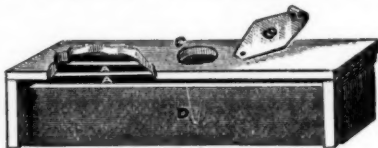
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